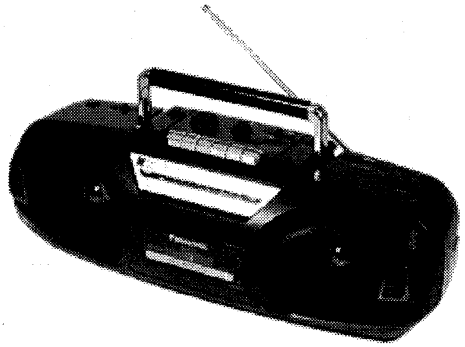
ORDER NO. MD9806117A2

Service Manual

Stereo Radio Cassette Recorder

Radio Cassette

RX-FS50



Colour
(K) ····· Black Type

Areas
(EE) ···· C.I.S.

Tape Deck: SG20 Mechanism Series

Please file and use this manual together with the service manual for Model No. RX-FS50 (GU), Order No. MD9804079C3.

Note:
This service manual is provided to indicate the differences between the original model No. RX-FS50 (GU) and the subsequent model No. RX-FS50 (EE).

Specifications

< RX-FS50 (GU) >			< RX-FS50 (EE) >	
Intermediate frequency:		→	Intermediate frequency:	
FM	10.7MHz		FM	10.7MHz
AM (MW/SW1/SW2)	455kHz		AM (MW/SW1/SW2)	459kHz

Measurements and Adjustments < RX-FS50 (GU) Service Manual of pages 9 ~ 11. >

< RX-FS50 (GU) >			< RX-FS50 (EE) >	
[Tuner Section]		→	[Tuner Section]	
• AM-IF ALIGNMENT:			• AM-IF ALIGNMENT:	
Frequency	455kHz (T2)		Frequency	459kHz (T2)

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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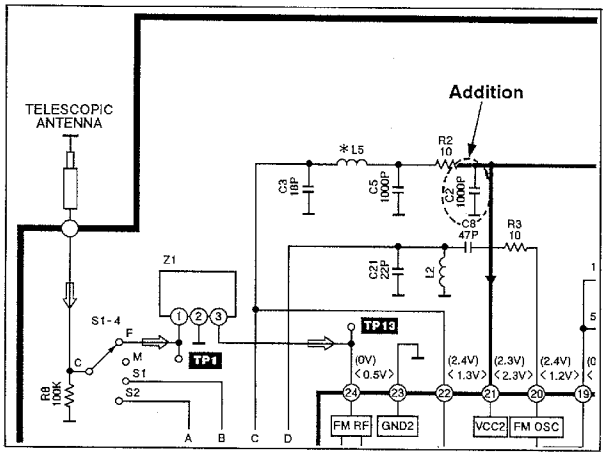
■ Schematic Diagram

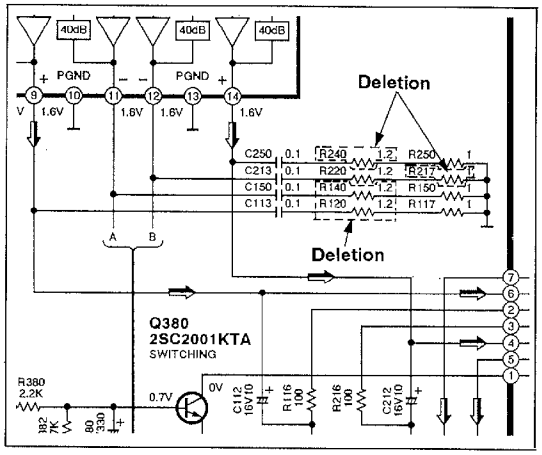
A TUNER CIRCUIT

<RX-FS50 (GU) Service Manual of page 13.>



B MAIN CIRCUIT

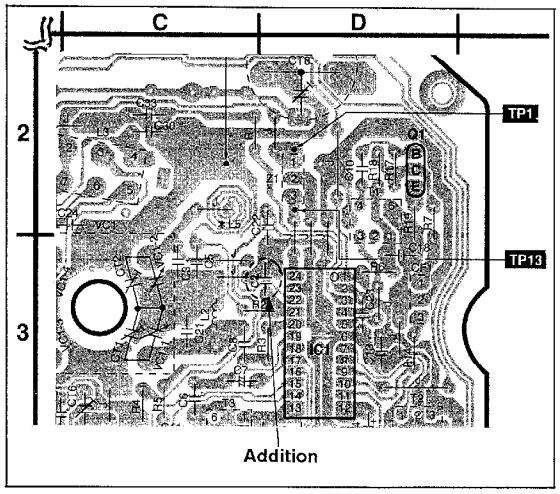
<RX-FS50 (GU) Service Manual of page 15.>



■ Printed Circuit Board Diagram

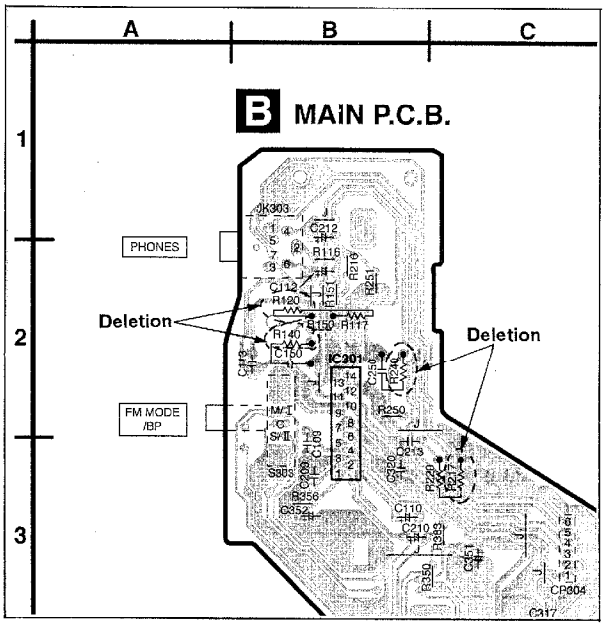
A TUNER P.C.B.

<RX-FS50 (GU) Service Manual of page 17.>



B MAIN P.C.B.

<RX-FS50 (GU) Service Manual of page 18.>



■ Replacement Parts List

Note: Mentioned in this parts list is only those different from Model No. RX-FS50 (GU) and the subsequent model No. RX-FS50 (EE).

Ref. No.	Part Number		Part Name & Description	Remarks
	RX-FS50 (GU)	➡ **RX-FS50 (EE)**		
SWITCH(ES)				
S301	RSS2D32ZA-H	**RSS2D32ZA-A**	SW, SELECTOR	CHANGE
RESISTERS				
R16	ERDS2FJ181	**ERDS2FJ151**	RESISTOR, 1/4W 150 Ω	CHANGE
R117	ERDS2FJ1R0	**ERD2FCJ4R7**	RESISTOR, 1/4W 4.7 Ω	CHANGE
R120	ERDS2FJ1R2	———	———	DELETION
R140	ERDS2FJ1R2	———	———	DELETION
R150	ERDS2FJ1R0	**ERD2FCJ4R7**	RESISTOR, 1/4W 4.7 Ω	CHANGE
R217	ERDS2FJ1R0	———	———	DELETION
R220	ERDS2FJ1R2	**ERD2FCJ4R7**	RESISTOR, 1/4W 4.7 Ω	CHANGE
R240	ERDS2FJ1R2	———	———	DELETION
R250	ERDS2FJ1R0	**ERD2FCJ4R7**	RESISTOR, 1/4W 4.7 Ω	CHANGE
R311	ERDS2FJ102	**ERDS2FJ391**	RESISTOR, 1/4W 390 Ω	CHANGE
CAPACITORS				
C2	———	**ECBT1H102KB5**	CAPACITOR, 50V 1000PF	ADDITION
C22	ECBT1H1R5MC5	**ECBT1H2R2KC5**	CAPACITOR, 50V 2.2PF	CHANGE
C901-04	ECKR1H103ZF5	**ECKR2H103ZF5**	CAPACITOR, 500V 0.01 μF	CHANGE
CABINET PARTS				
7	RFKGXFS50GUK	**RFKGXFS50EEK**	FRONT CABINET ASS'Y	CHANGE
7-1	RKWX0122-Q	**RKWX0122B-Q**	DIAL PANEL	CHANGE
8	RFKHXFS50GUK	**RFKHXFS50EEK**	BACK CABINET ASS'Y	CHANGE
PACKING MATERIAL				
P1	RPGX0467	**RPGX0497**	GIFT BOX	CHANGE
ACCESSORIES				
A3	RQT4404-G	**RQT4425-B** **RQT4426-R**	O/I BOOK	CHANGE

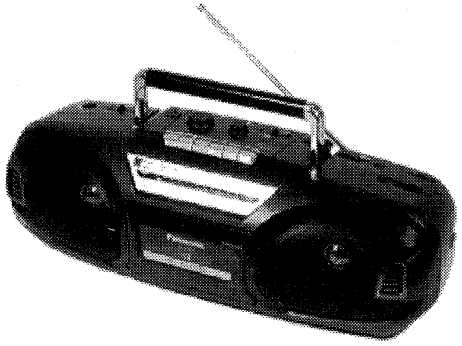
ORDER NO. MD9804079C3

Service Manual

Stereo Radio Cassette Recorder

Radio Cassette

RX-FS50



Colour

(K) ... Black Type

Areas

(GU) .....Asia, Latin America, Middle East and Africa.

(GC) ..... Saudi Arabia, Kuwait, Singapore, Malaysia.

Tape Deck: SG20 Mechanism Series

Specifications

Radio:	
Frequency range:	
FM	88 –108 MHz
MW	530 – 1605 kHz
SW1	2.3 – 7.0 MHz
SW2	7.0 – 22.0 MHz
Intermediate frequency:	
FM	10.7 MHz
AM(MW/SW1/SW2)	455 kHz
Sensitivity:	
FM	4.5 µV/ 50 mW output (-3dB Limit Sens)
AM	125.9 µV/ m / 50 mW output (Max Sens)
SW1	63.1 µV/ m/ 50 mW output (Max Sens)
SW2	4.7 µV/ 50 mW output (Max Sens)
Tape recorder:	
Track system:	4 track 2 channel stereo
Recording system:	AC bias
Erasing system:	Magnet
Monitor system:	Variable sound monitor
Frequency range	
Normal:	70–13000 Hz
Tape speed:	4.8 cm/s

General:	
Power requirement:	
AC	110 – 127 V/ 220 –240 V, 50/60 Hz
	Power consumption: 13 W
Battery	9 V(Six R20/ LR20, D, UM-1 batteries)
	● Do not use rechargeable type batteries.
Power output:	60 W (30 W x 2)... PMPO
Speakers:	
Woofer	10 cm PM Dynamic speaker,6Ω
Tweeter	1.5 cm Ceramic speaker
Output:	Headphones; 32Ω, ϕ 3.5
Dimensions (W x H x D):	480 x 171 x 160 mm
Weight:	2.8 kg without batteries

Note: Design and specifications are subject to change without notice. Weight and dimensions are approximate.

⚠WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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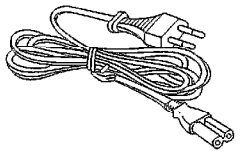
Contents

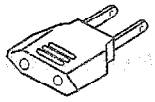
	Page
Accessories	2
Location of Controls	2
Operation Checks and Main Component Replacement Procedures	3 ~ 8
Measurements and Adjustments	9 ~ 11
Type Illustration of IC's, Transistors and Diodes	12
Schematic Diagram	12 ~ 15
Wiring Connection Diagram	16
Printed Circuit Board Diagram	17,18
Cabinet Parts Location	19
Replacement Parts List (Cabinet)	19
Mechanism Parts Location	20
Replacement Parts List (Mechanism)	20
Replacement Parts List (Electrical)	21, 22
Packaging	23
Replacement Parts List (Accessories& Packing)	23

Accessories

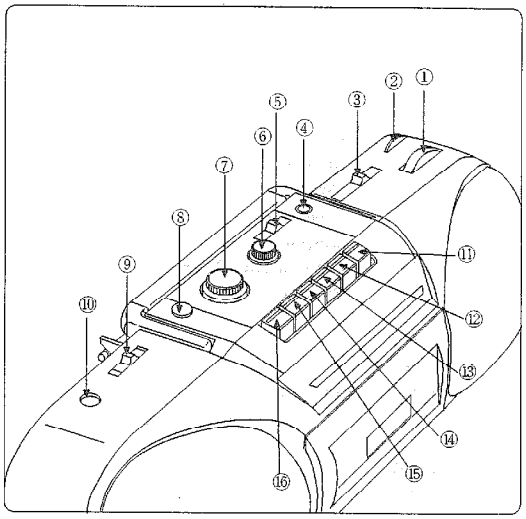
- AC power cord ..... 1pc.
  [RJA0004]...For (GU) area.
  [RJA0019-2K]...For (GC) area.



- AC power plug adaptor ..... 1pc.
  [RJP1SG02-H]...For (GU) area.
  [RJP1SG04-H]...For (GC) area.



Location of Controls



① ..... Tuning knob
② ..... Fine tuning knob
③ ..... Band selector knob
④ ..... FM stereo indicator
⑤ ..... Selector knob
⑥ ..... Tone knob
⑦ ..... Volume knob
⑧ ..... Built-in microphone
⑨ ..... FM mode/Beat proof (BP) selector knob
⑩ ..... Headphones jack (ϕ3.5, 32Ω)
⑪ ..... Record(●) button
⑫ ..... Playback(◁) button
⑬ ..... Reverse(▶▶) button
⑭ ..... Cue (◀◀) button
⑮ ..... Stop/eject(■/▲) button
⑯ ..... Pause(▮▮) button

Operation Checks and Component Replacement Procedures

NOTE

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select item from the following index when checks or replacement are required.
4. Refer the parts No. on the page of "Main Component Replacement Procedures", if necessary.

• Contents

Checking Procedures for each P.C.B. Page.

1. Checking for the tuner P.C.B.. . . . . 3,4.
2. Checking for the main P.C.B.. . . . . 4,5.

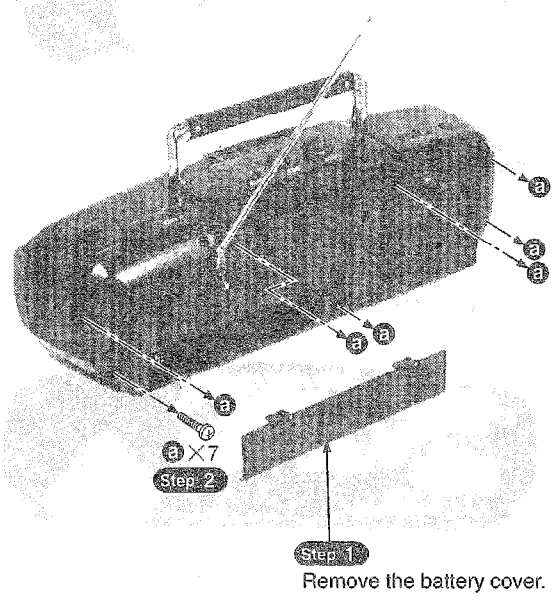
Main Component Replacement Procedures

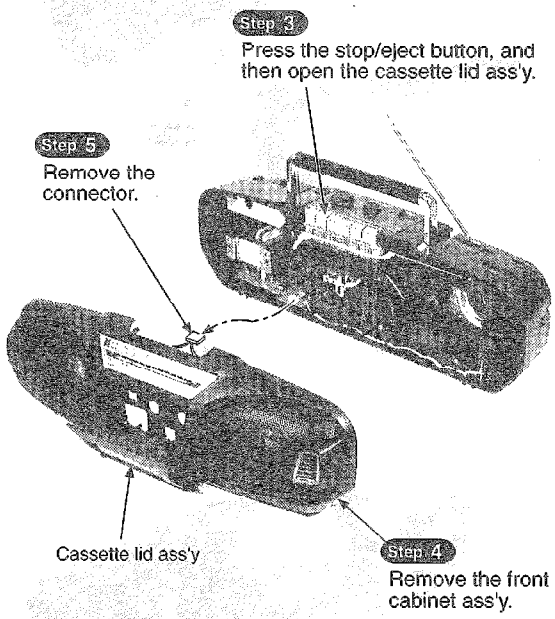
1. Replacement for the pinch roller ass'y, erase head and rec/play head. . . . . 5,6.
2. Replacement for the motor ass'y, main belt and fast forward belt. . . . . 6.
3. Replacement for the speakers (Tweeter). . . . . 7.
4. Replacement for the cassette lid ass'y. . . . . 7.
5. Replacement for the handle. . . . . 7.

Point "0" Adjustment . . . . . 8.
Measure for Tape Trouble . . . . . 8.

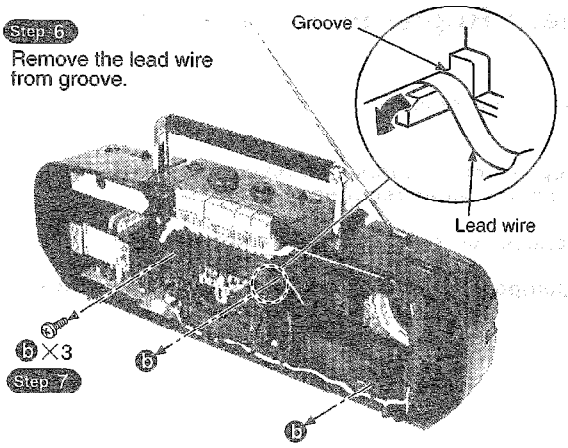
Checking Procedures for each P.C.B.

1. Checking for the tuner P.C.B.

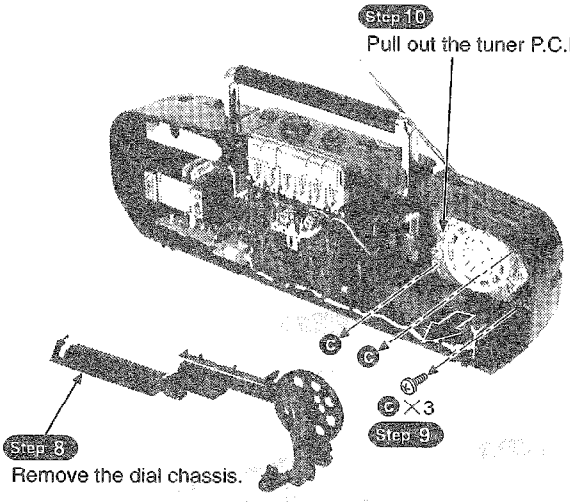



Step 3
Press the stop/eject button, and then open the cassette lid ass'y.
Step 5
Remove the connector.
Cassette lid ass'y
Step 4
Remove the front cabinet ass'y.

Step 6
Remove the lead wire from groove.

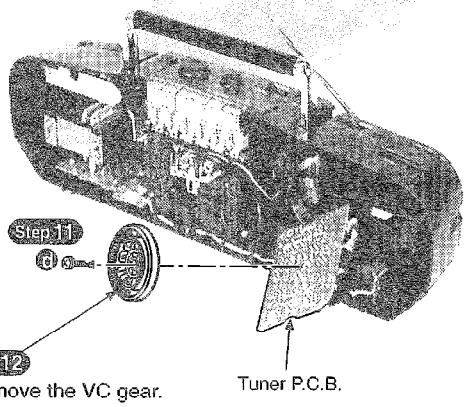


Step 10
Pull out the tuner P.C.B..



Remove the dial chassis.

· Check the tuner P.C.B. as shown below.



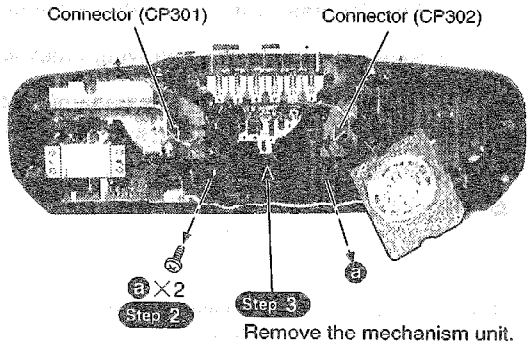
Remove the VC gear.

Tuner P.C.B.

2. Checking for the main P.C.B.

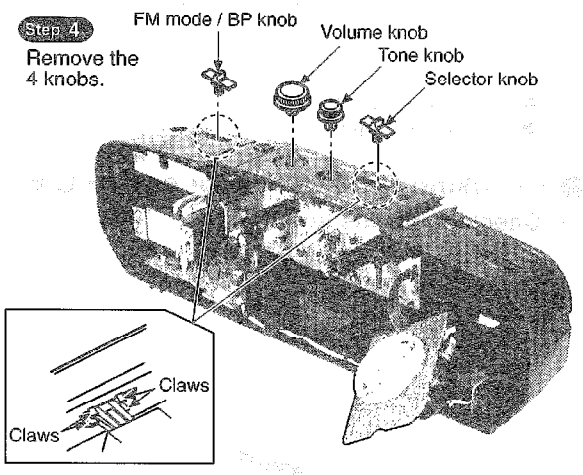
· Follow the Step 1 ~ Step 10 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.

Step 1
Remove the 2 connectors.



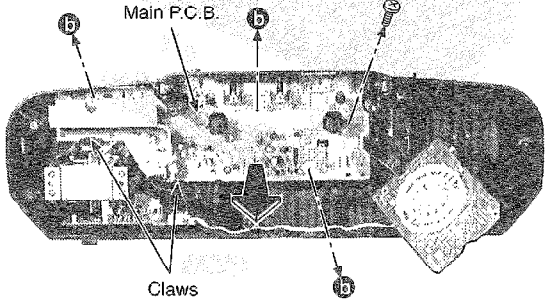
Remove the mechanism unit.

Step 4
Remove the 4 knobs.



· Release the 4 claws. (Take care not to damage the claws.)

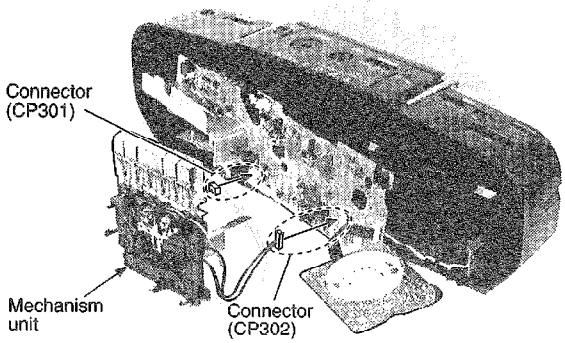
Step 5
b×4



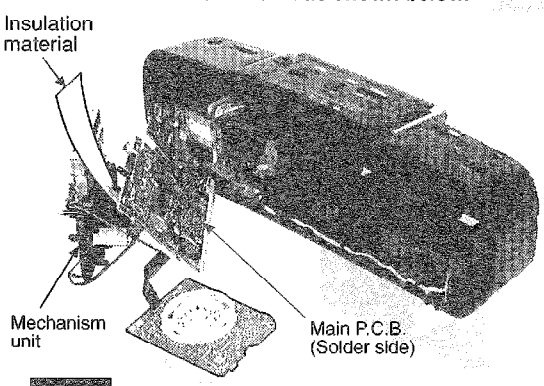
Step 6
Release the 2 claws, and then remove the main P.C.B..

Step 7

Connect the 2 connectors (CP301, CP302).

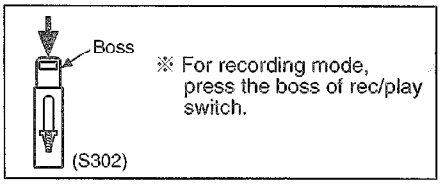


• Check the main P.C.B. as shown below.



NOTE

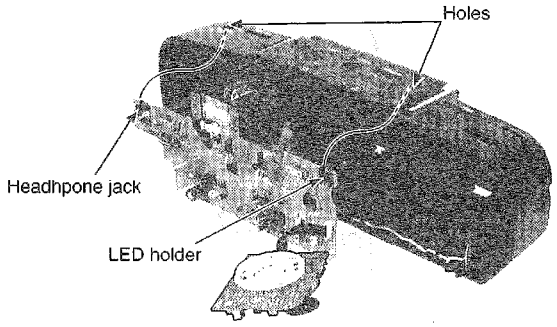
Locate the insulation material between the main P.C.B. and the mechanism unit to prevent from short-circuit.



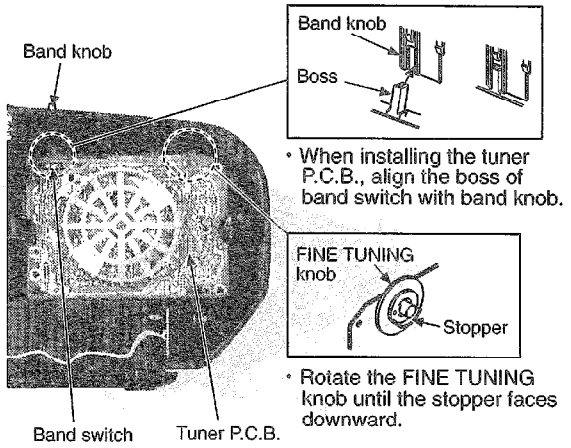
※ For recording mode, press the boss of rec/play switch.

Notice for installation of tuner P.C.B.

• When installing the main P.C.B., align the headphones jack and LED holder with the hole of rear cabinet ass'y.



Notice for installation of tuner P.C.B.



• When installing the tuner P.C.B., align the boss of band switch with band knob.

• Rotate the FINE TUNING knob until the stopper faces downward.

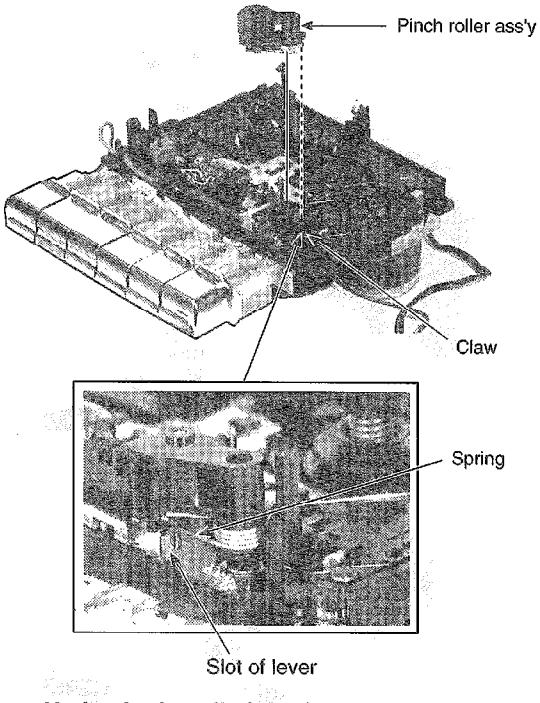
Main Component Replacement Procedures

1. Replacement for the pinch roller, erase head and rec / play head

- Follow the Step 1 ~ Step 10 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the Step 1 ~ Step 3 of the item 2 in checking procedure for each P.C.B. on page 4.

Removal of the pinch roller ass'y

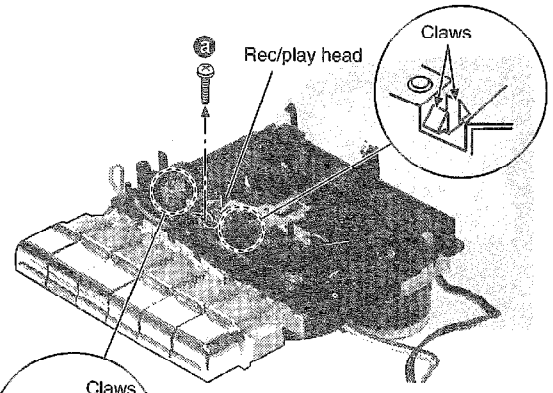
• Release the 1 claw, and then pull out the pinch roller ass'y.

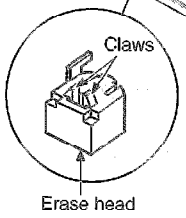


• **Notice for installation of pinch roller ass'y**
The pinch roller ass'y spring should be aligned with the slot of lever.

■ Removal of the rec/play head

1. Remove the 1 screw (ⓐ).
2. Release the 2 claws, and then remove the rec/play head.



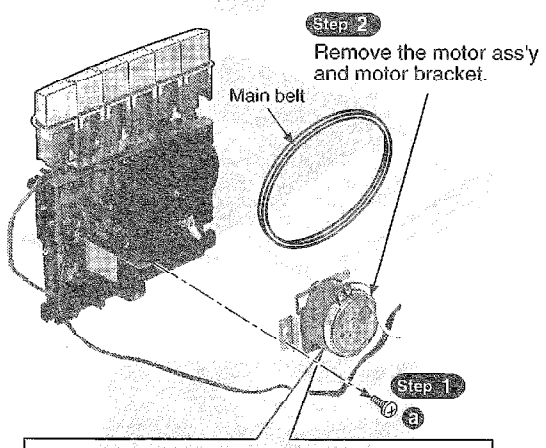


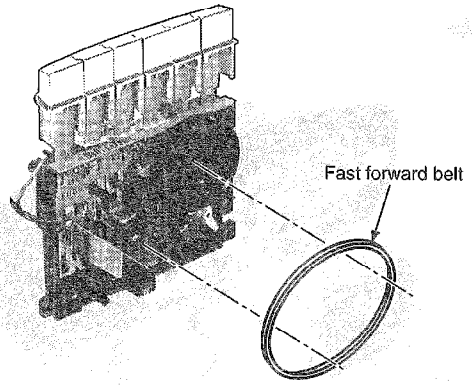
■ Removal of the erase head

Release the 2 claws, and then remove the erase head.

2. Replacement for the motor ass'y, main belt and fast forward belt

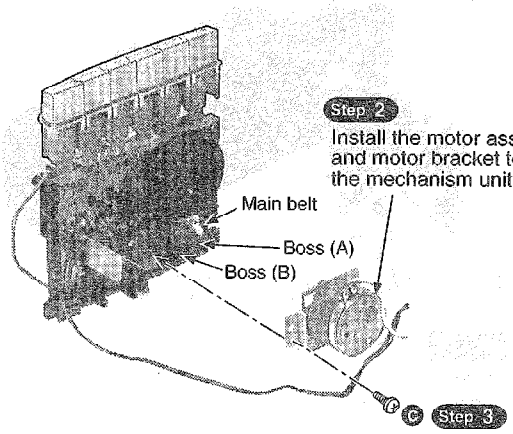
- Follow the Step 1 ~ Step 10 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the Step 1 ~ Step 3 of the item 2 in checking procedure for each P.C.B. on page 4.



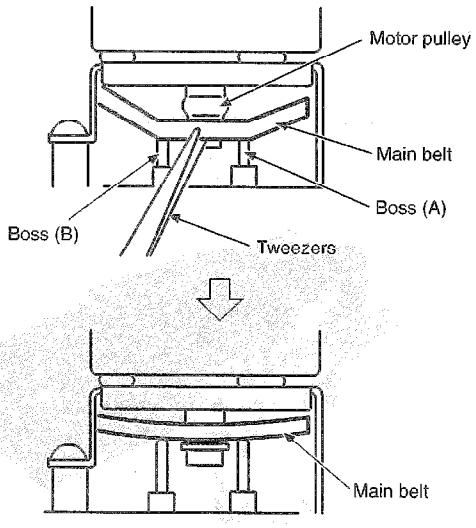


Installation of the main belt

Step 1
Temporarily secure the main belt as show below.

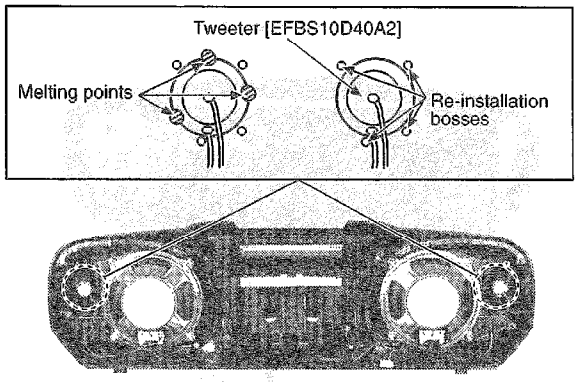


Step 4
Secure the main belt with the motor pulley.



3. Replacement for the speaker (Tweeter)

· Follow the Step 1 ~ Step 5 of the item 1 in checking procedure for each P.C.B. on page 3.



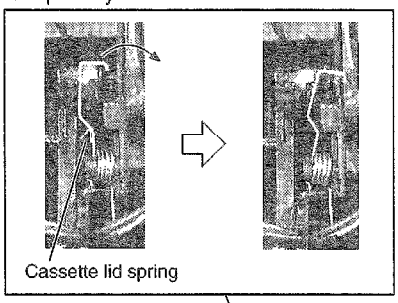
Step 1
Scratch the melting points (3 points) with cutter.

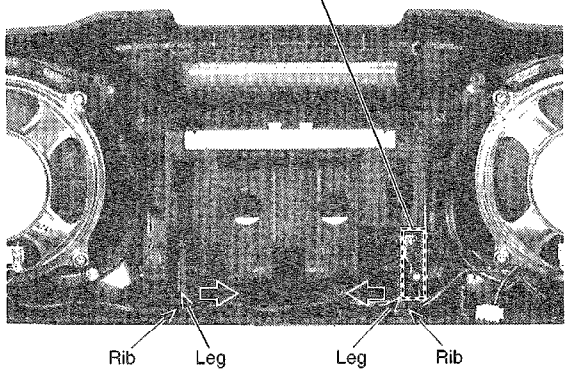
Step 2
After replacement, install the speaker with melting the re-installation bosses (4 points).

4. Replacement for the cassette lid ass'y

· Follow the Step 1 ~ Step 5 of the item 1 in checking procedure for each P.C.B. on page 3.

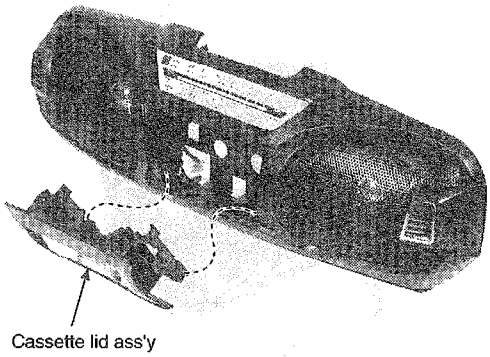
Step 1
Install the cassette lid spring to the rib temporarily.



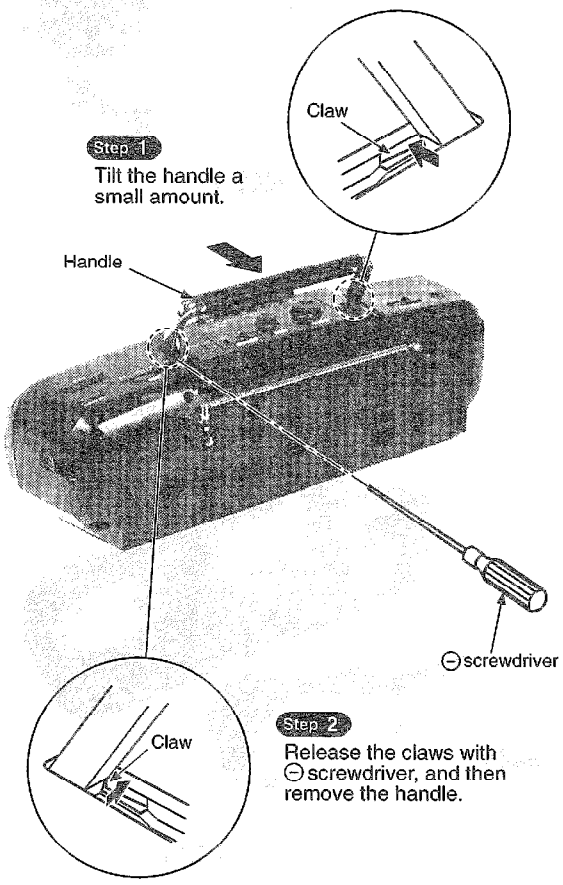


Step 2
Push the legs of cassette lid ass'y in the direction of arrow, and then release the cassette lid ass'y.

Step 3
Remove the cassette lid ass'y.

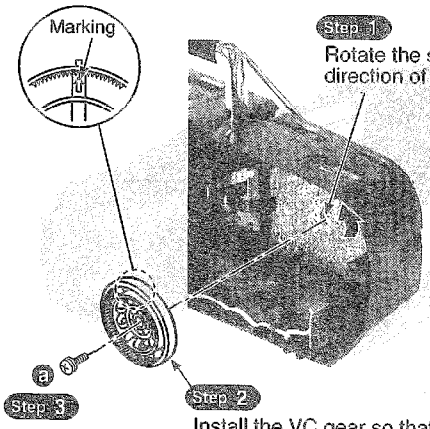


5. Replacement for the handle

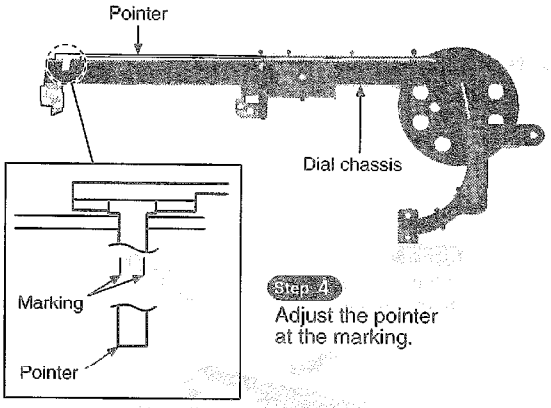


Step 2
Release the claws with ⊖screwdriver, and then remove the handle.

Point "0" Adjustment

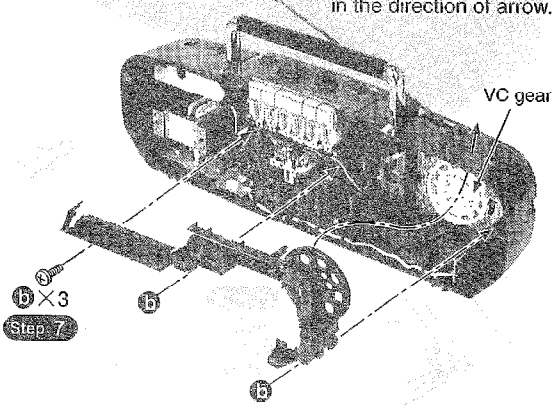


Install the VC gear so that marking (⇧) is located on upper side.



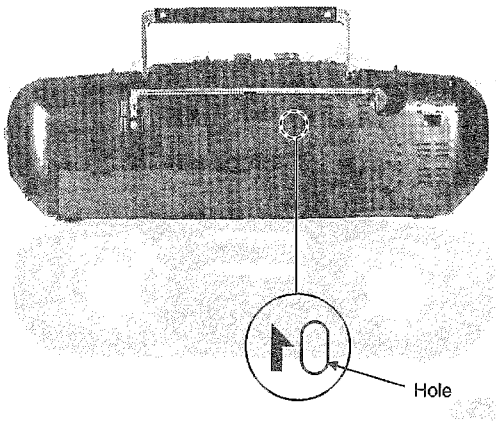
Step 4
Adjust the pointer at the marking.

Step 5
Rotate the VC gear fully in the direction of arrow.



Step 6
Install the dial chassis to the unit.

Measure for Tape Trouble



- If cassette tape can not be removed from the deck since it is caught by the capstan or pinch roller, insert a thin driver into the hole in the rear side of this unit and remove the winded tape with rotating the flywheel ass'y in the direction of arrow.

Measurements and Adjustments

[Tuner Section]

• ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set power source voltage to 9V DC. 2. Set volume control to maximum. 3. Set band switch to FM, MW, SW1 or SW2. 4. Set selector switch to TAPE or RADIO.	5. Set FM MODE/BP switch to MONO/I. 6. Set FINE TUNING to center. 7. Output of signal generator should be no higher than necessary to obtain an output reading.

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment (Shown in **Fig.1**)	Remarks
Connections	Frequency				
• AM - IF ALIGNMENT					
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. at 400 Hz	Point of non-intereference. (on/about 600kHz)	Headphones Jack(32Ω) [Fabricate the plug as shown in **Fig.2** and then connect the lead wires of the plug to the measuring instrument.]	T2 (AM IFT)	Adjust for maximum output.
• MW - RF ALIGNMENT					
〃	(GU) .... 511 kHz (GC) .... 514 kHz ±3 kHz	Tuning capacitor fully closed.	〃	L8 (MW OSC. Coil)	Adjust for maximum output.
〃	(GU)....1650 kHz (GC)....1639 kHz ±5 kHz	Tuning capacitor fully opened.	〃	CT6 (MW OSC. VC1)	Adjust for maximum output.
〃	550 kHz	Tune to signal	〃	[*1] L3-1 (MW ANT. Coil)	Adjust for maximum output. Adjust L3-1 by moving coil bobbin along the ferrite core.
〃	1500 kHz	Tune to signal	〃	CT5 (MW ANT. Trimmer)	Adjust for maximum output.
[*1] Fix antenna coil with wax after completing alignment.					
• SW1 - RF ALIGNMENT					
〃	2.249 MHz	Tuning capacitor fully closed.	〃	L9 (SW1 OSC. Coil)	Adjust for maximum output.
〃	7.231 MHz	Tuning capacitor fully opened.	〃	VC1-3 (SW1 ANT. VC1)	Adjust for maximum output.
〃	2.3 MHz	Tune to signal	〃	[*1] L3-2 (SW1 ANT. Coil)	Adjust for maximum output. Adjust L3-2 by moving coil bobbin along the ferrite core.
〃	7.0 MHz	Tune to signal	〃	VC1-4 (SW1 ANT. VC1)	Adjust for maximum output.
[*1] Fix antenna coil with wax after completing alignment.					

• SW2 - RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment (Show in **Fig.1**)	Remarks
Connections	Frequency				
Connect to test point TP9 through ceramic capacitor (10pF). Negative side to test point SW2.	6.84 MHz	Tuning capacitor fully closed.	Headphones Jack(32Ω) [Fabricate the plug as shown in **Fig.2** and then connect the lead wires of the plug to the measuring instrument.]	L10 (SW2 OSC. Coil)	Adjust for maximum output.
〃	22.80 MHz	Tuning capacitor fully opened.	〃	CT7 (SW2 OSC. Trimmer)	Adjust for maximum output.
〃	7.0 MHz	Tune to signal	〃	L7 (SW2 ANT. Coil)	Adjust for maximum output.

• FM - IF ALIGNMENT

Connect to test point TP13 through ceramic capacitor. Negative side to test point TP2.	10.7 MHz (Sweep)	Point of noninterference. (on/about 90MHz)	Connect vert amp. of scope to test point TP4. Negative side to test point TP6.	T1 (FM 1st IFT)	Waveform is shown in **Fig.3.**
〃	〃	〃	〃	T3 (FM 2nd IFT)	Waveform is shown in **Fig.4.**

• FM - RF ALIGNMENT

Connect to test point TP11 through FM dummy antenna. Negative side to test point TP2.	(GU) .... 86.2 MHz (GC) .... 87.35 MHz ±50 kHz	Variable capacitor fully closed.	Headphones Jack(32Ω) [Fabricate the plug as shown in **Fig.2** and then connect the lead wires of the plug to the measuring instrument.]	L2 (FM OSC. Coil)	Adjust for maximum output. [*2]
	(GU)....109.2 MHz (GC)....108.3 MHz ±70 kHz	Variable capacitor fully opened.	〃	VC-1 (FM OSC. VC1)	〃
	106 MHz	Tune to signal	〃	VC1-2 (FM ANT. VC1)	Adjust for maximum output.

[*2] Three output responses will be present; proper tuning is the center frequency.

[Cassette Deck Section]

• ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Measuring Instruments
- Digital frequency counter

Test Tape
- Tape speed adjustment (3 kHz, −10 dB); QZZCWAT

  Note: No Azimuth Head Alignment is required due to Aztec Head is used in the cassette mechanism.

Measuring Conditions
- Make sure the heads are clean.
- Make sure the capstan and pressure rollers are clean.

• TAPE SPEED ALIGNMENT

Test Tape	Equipment Connection Electronic counter	Adjustment	Specification	Remarks
QZZCWAT	Headphones Jack(32Ω) [Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.]	MOTOR VR (Shown in Fig.5)	3000 ± 60 Hz	1. Set the unit to 'TAPE' position. 2. Playback the middle part of the test tape (QZZCWAT). 3. Adjust motor VR for output of 3000 ± 60 Hz shown on frequency counter.

● Alignment Points

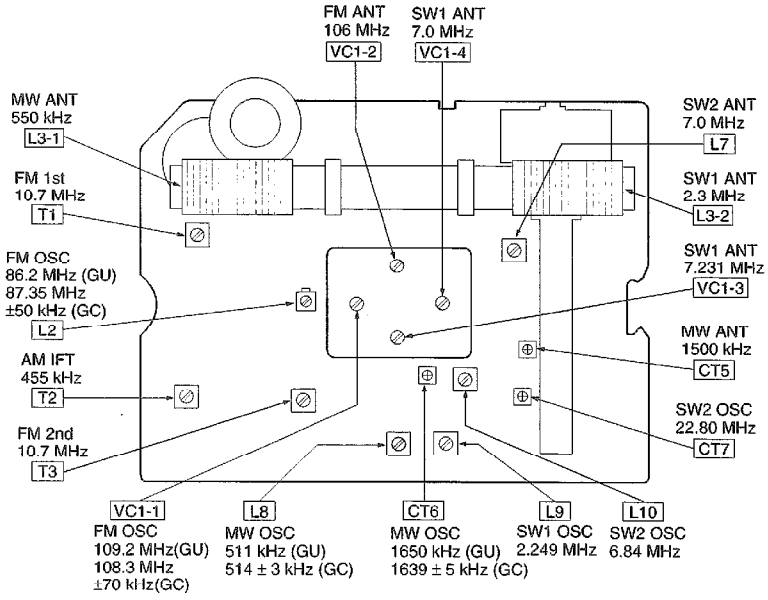


Fig.1

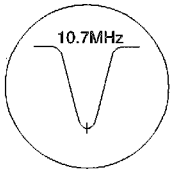


Fig.3

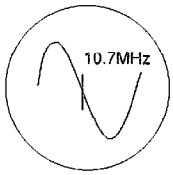


Fig.4

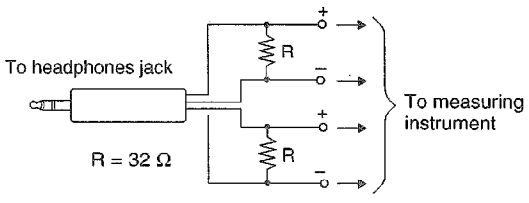


Fig.2

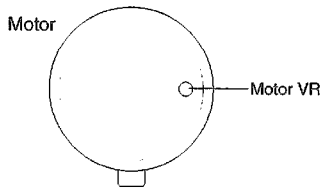
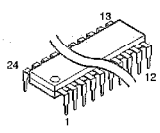
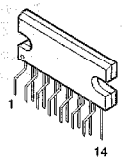
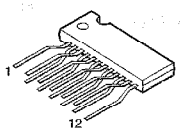
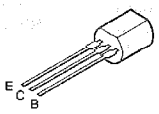
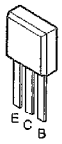
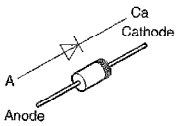
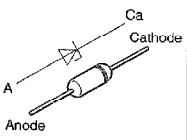
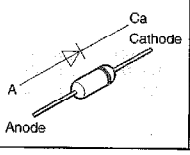
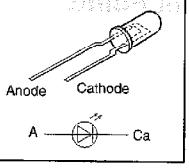


Fig.5

Type Illustration of IC's, Transistors and Diodes

LA1828 	LA4663 	BA3313L 	 2SC829D 2SC2001K 2SA1127-S 2SC1685-QNC
RVTDTC144EST 	RL154M11 	MTZJ6R8BTA 	RVD1SS133TA 
			SLR342VC 

Schematic Diagram

(This schematic diagram may be modified at any time with the development of new technology.)

Page

A Tuner Circuit 13
B Main Circuit 14,15
C Power Supply Circuit 15
D Battery Terminal Circuit 15

Notes:

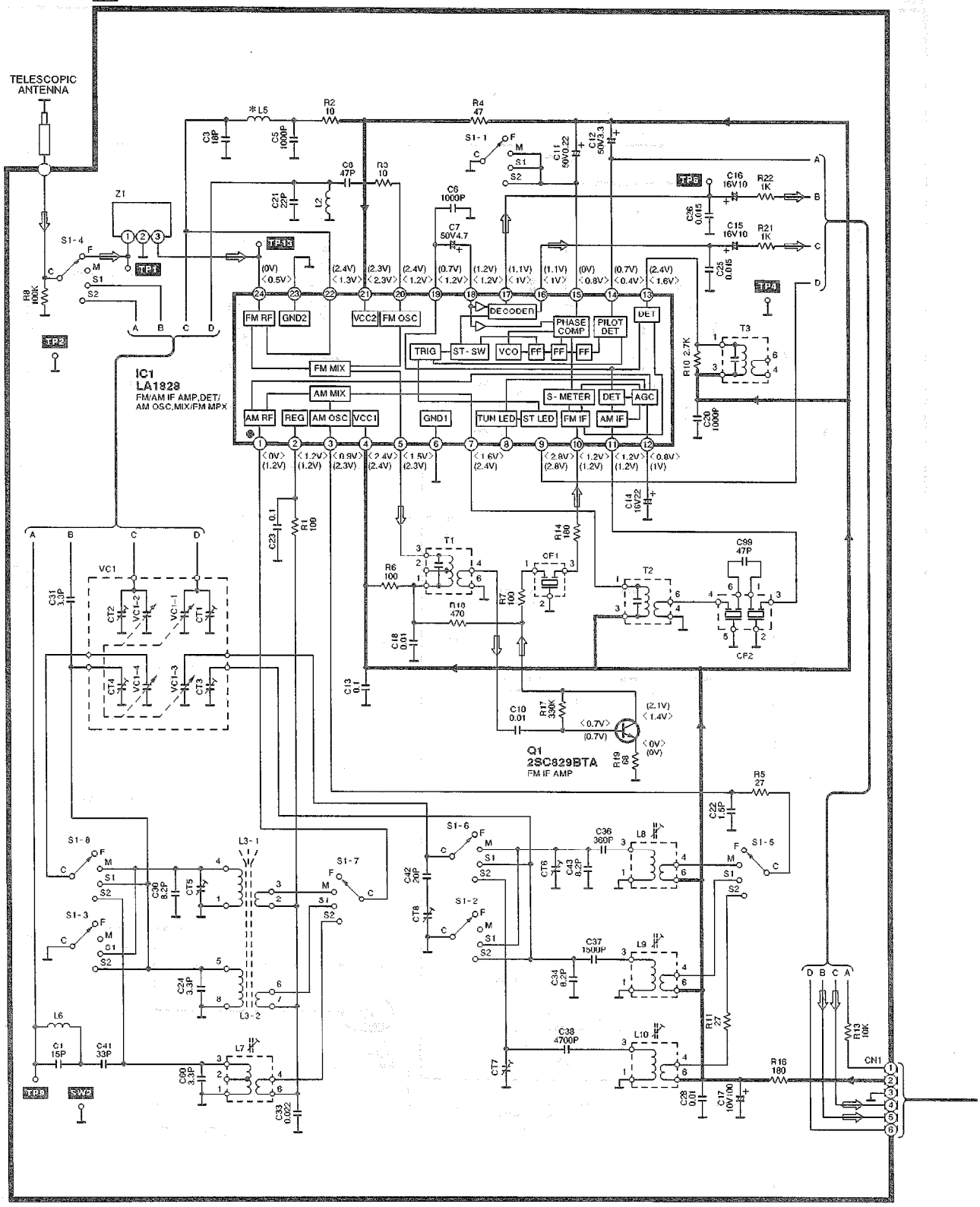
- S1-1 ~ S1 ~ 8 : Selector switch to "FM" position.
  (F...FM, M...MW, S1...SW1, S2...SW2)
- S301-1 ~ S301- 4 : Function select switch to "TAPE/OFF" position.
  (T...TAPE/OFF, R...RADIO)
- S302-1 ~ S302- 6 : Record/Playback select switch to "PLAYBACK" position.
  (P...PLAYBACK, R...RECORD)
- S303 : FM mode/BP select switch to "MONO/ I" position.
  (M/I...MONO/ I, S/II...STEREO/ II)
- S2 : Motor switch.
- S901: Voltage select switch "110 - 127V" position.
- VR301-1, VR301-2 : Tune adjustment.
- VR302-1, VR302-2 : Volume adjustment.

- DC voltage measurements are taken with electronics voltmeter.
  The negative terminal of the battery provides negative meter connection point.
  No mark...TAPE PLAYBACK, < > ... FM , ( ) ...AM.

- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety.
  When replacing any of these components, use only manufactue's specified parts.
- * mark indicate printed coil.
- Signal lines
  : FM signal line
  : Record signal line
  : + B line
  : Tape playback signal line
  : Main signal line

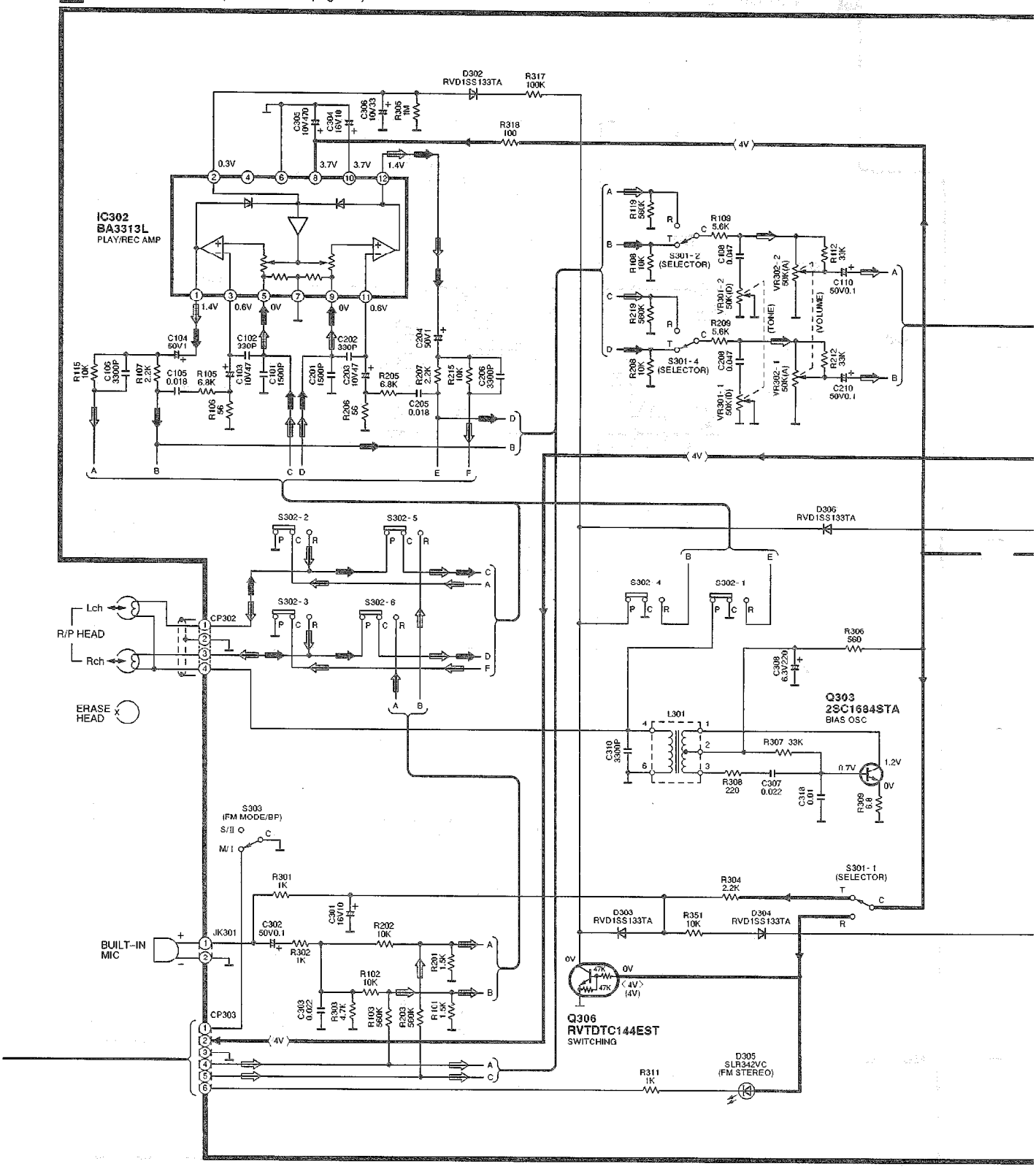
• Signal lines ⟹ : FM signal line

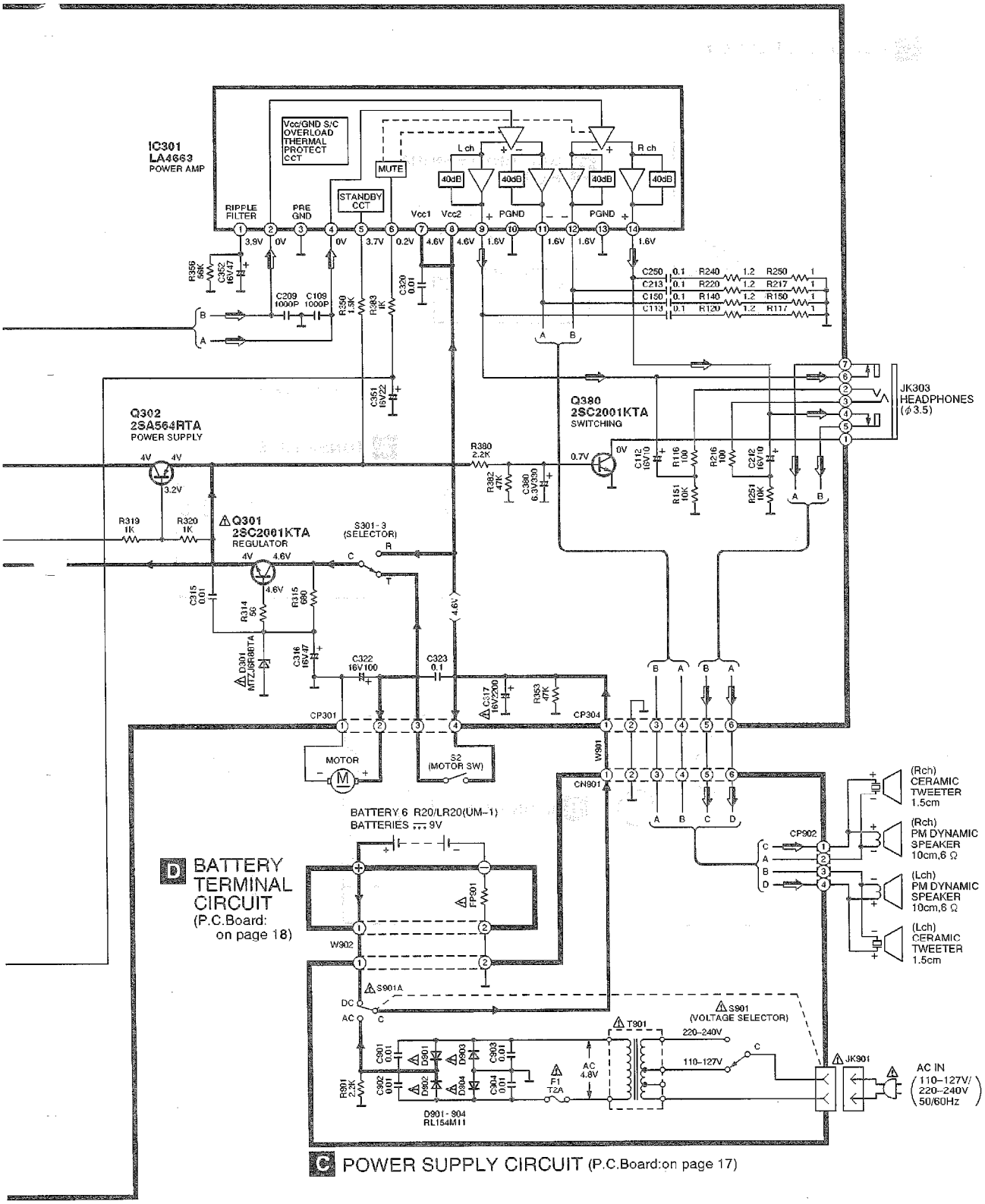
A TUNER CIRCUIT (P.C.Board:on page 17)



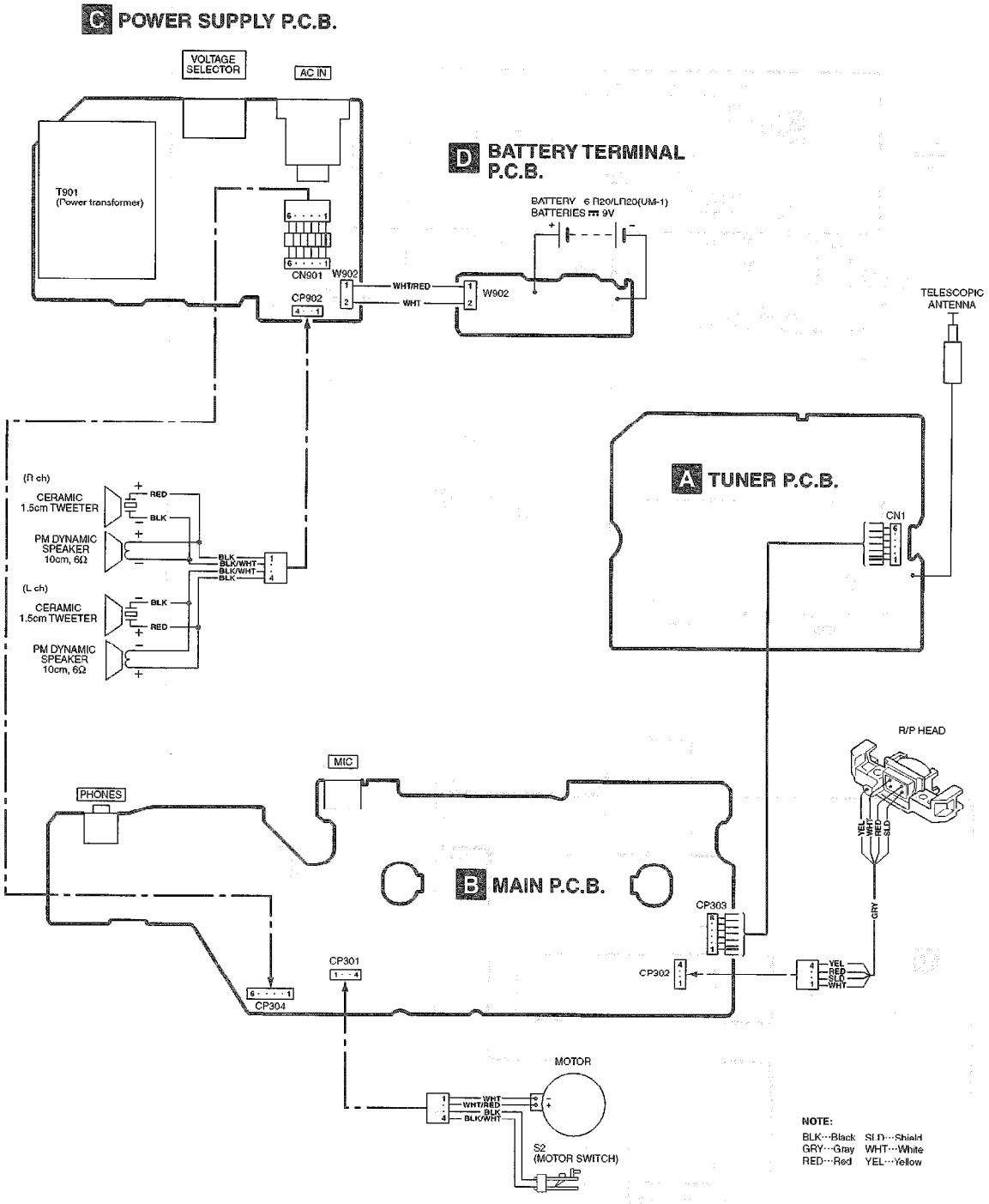
• Signal lines : FM signal line : Tape playback signal line : Record signal line : Main signal line

B MAIN CIRCUIT (P.C.Board:on page 18)




IC301
LA4663
POWER AMP
Vcc/GND S/C
OVERLOAD
THERMAL
PROTECT
CCT
MUTE
STANDBY
CCT
RIPPLE
FILTER
PRE
GND
L ch
R ch
40dB
Vcc1
Vcc2
PGND
Q302
2SA564RTA
POWER SUPPLY
Q380
2SC2001KTA
SWITCHING
JK303
HEADPHONES
(φ3.5)
Q301
2SC2001KTA
REGULATOR
S301-3
(SELECTOR)
MOTOR
S2
(MOTOR SW)
BATTERY 6 R20/LR20(UM-1)
BATTERIES 9V
D BATTERY
TERMINAL
CIRCUIT
(P.C.Board:
on page 18)
(Rch)
CERAMIC
TWEETER
1.5cm
(Rch)
PM DYNAMIC
SPEAKER
10cm,6 Ω
(Lch)
PM DYNAMIC
SPEAKER
10cm,6 Ω
(Lch)
CERAMIC
TWEETER
1.5cm
S901
(VOLTAGE SELECTOR)
220–240V
110–127V
AC IN
(110–127V/
220–240V
50/60Hz
D901 - 904
RL154M11
C POWER SUPPLY CIRCUIT (P.C.Board:on page 17)

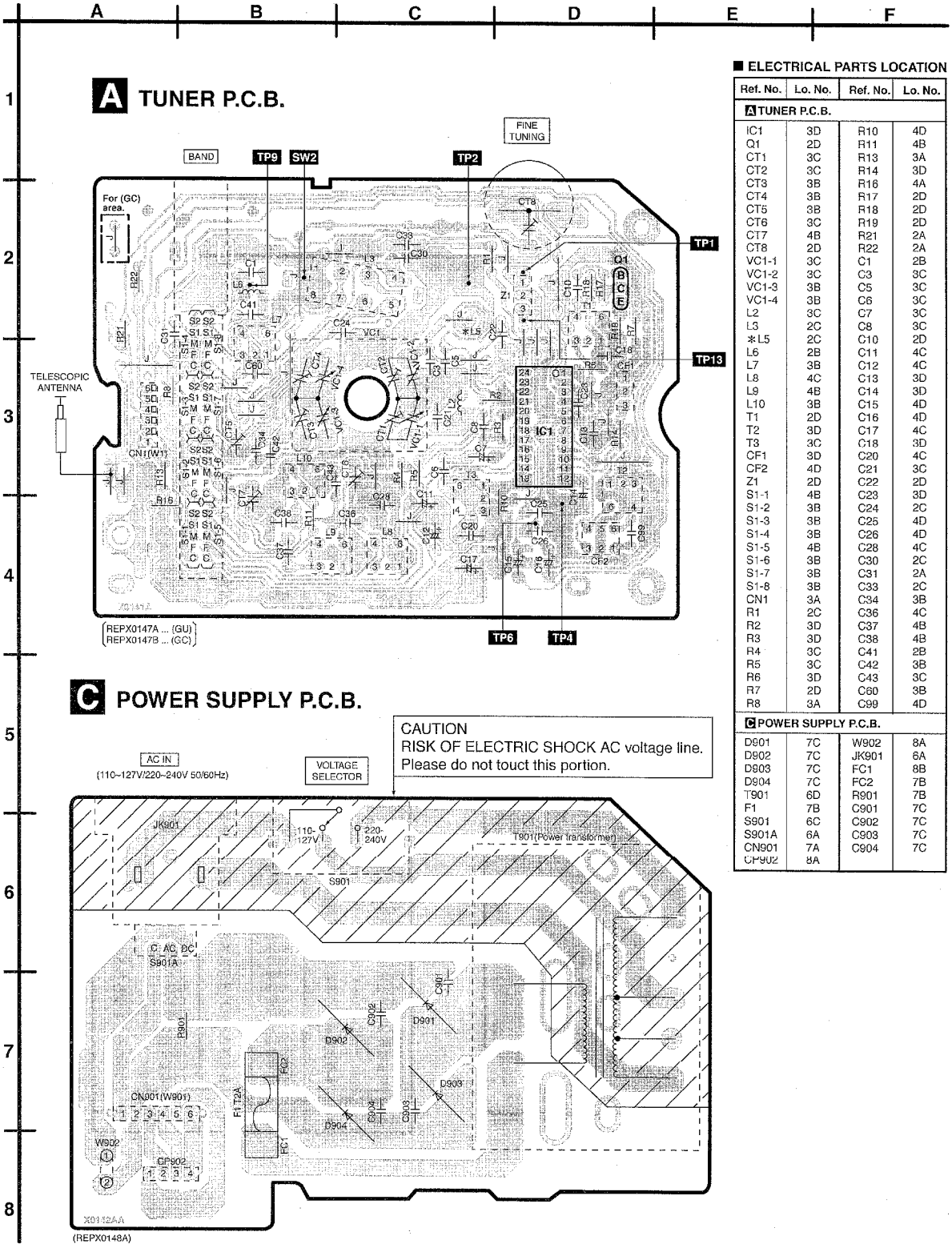
Wiring Connection Diagram



Printed Circuit Board Diagram

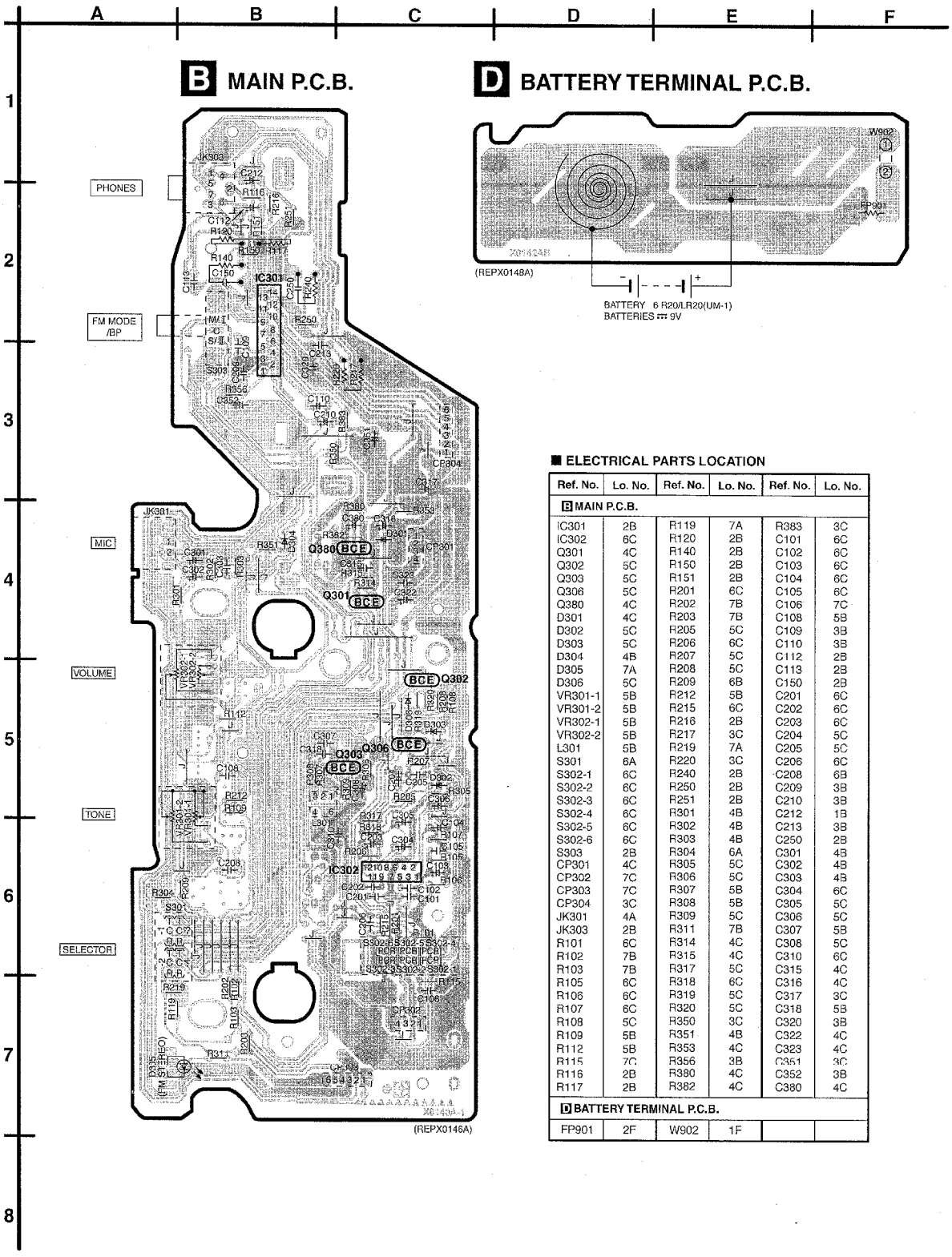
(This printed circuit board diagram may be modified at any time with development of new technology.)

Note: • ✻ mark indicate printed coil.



■ ELECTRICAL PARTS LOCATION

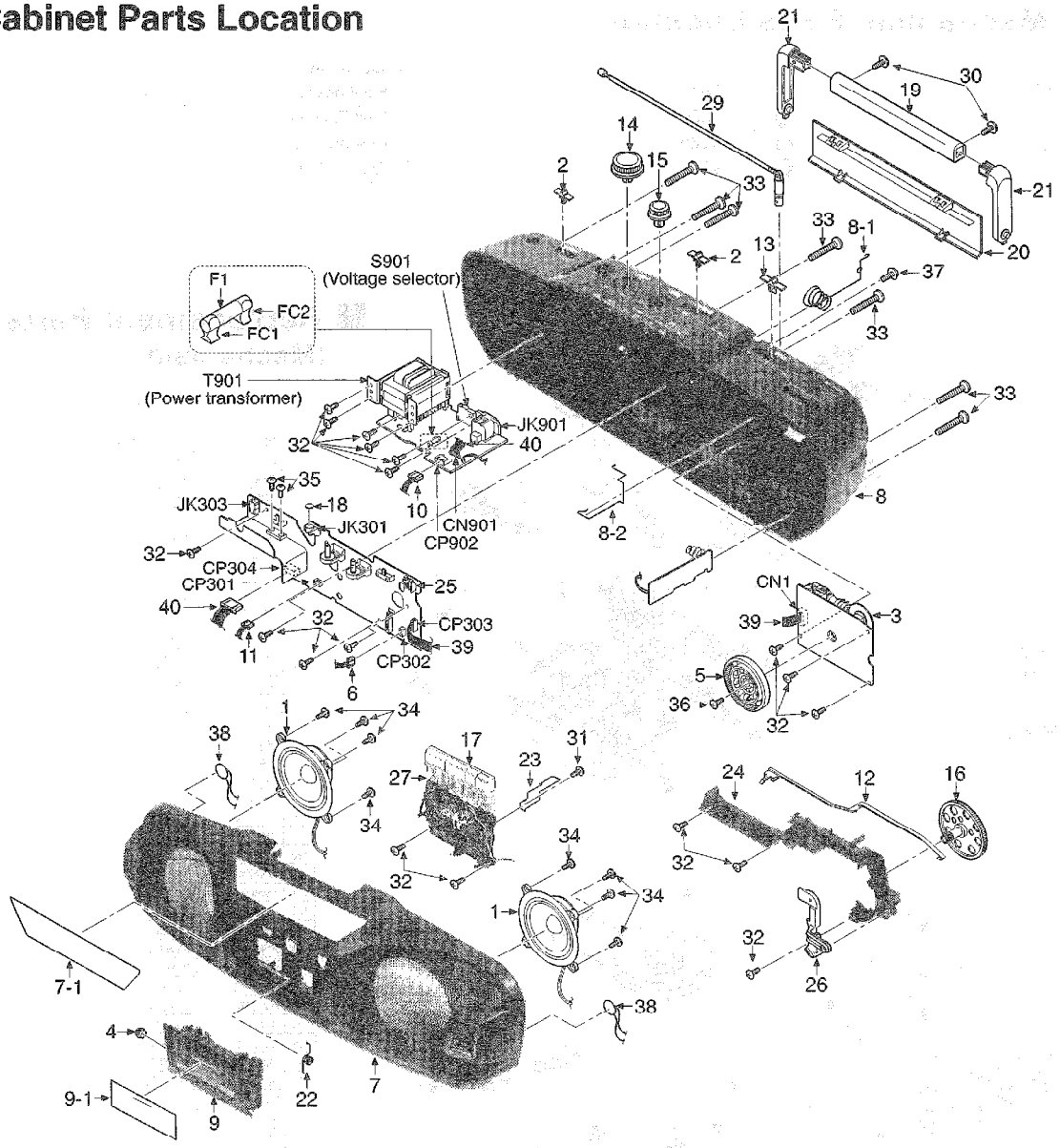
Ref. No.	Lo. No.	Ref. No.	Lo. No.
A TUNER P.C.B.			
IC1	3D	R10	4D
Q1	2D	R11	4B
CT1	3C	R13	3A
CT2	3C	R14	3D
CT3	3B	R16	4A
CT4	3B	R17	2D
CT5	3B	R18	2D
CT6	3C	R19	2D
CT7	4B	R21	2A
CT8	2D	R22	2A
VC1-1	3C	C1	2B
VC1-2	3C	C3	3C
VC1-3	3B	C5	3C
VC1-4	3B	C6	3C
L2	3C	C7	3C
L3	2C	C8	3C
✻L5	2C	C10	2D
L6	2B	C11	4C
L7	3B	C12	4C
L8	4C	C13	3D
L9	4B	C14	3D
L10	3B	C15	4D
T1	2D	C16	4D
T2	3D	C17	4C
T3	3C	C18	3D
CF1	3D	C20	4C
CF2	4D	C21	3C
Z1	2D	C22	2D
S1-1	4B	C23	3D
S1-2	3B	C24	2C
S1-3	3B	C25	4D
S1-4	3B	C26	4D
S1-5	4B	C28	4C
S1-6	3B	C30	2C
S1-7	3B	C31	2A
S1-8	3B	C33	2C
CN1	3A	C34	3B
R1	2C	C36	4C
R2	3D	C37	4B
R3	3D	C38	4B
R4	3C	C41	2B
R5	3C	C42	3B
R6	3D	C43	3C
R7	2D	C60	3B
R8	3A	C99	4D
C POWER SUPPLY P.C.B.			
D901	7C	W902	8A
D902	7C	JK901	6A
D903	7C	FC1	8B
D904	7C	FC2	7B
T901	6D	R901	7B
F1	7B	C901	7C
S901	6C	C902	7C
S901A	6A	C903	7C
CN901	7A	C904	7C
CP902	8A		



■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
B MAIN P.C.B.					
IC301	2B	R119	7A	R383	3C
IC302	6C	R120	2B	C101	6C
Q301	4C	R140	2B	C102	6C
Q302	5C	R150	2B	C103	6C
Q303	5C	R151	2B	C104	6C
Q306	5C	R201	6C	C105	6C
Q380	4C	R202	7B	C106	7C
D301	4C	R203	7B	C108	5B
D302	5C	R205	5C	C109	3B
D303	5C	R206	6C	C110	3B
D304	4B	R207	5C	C112	2B
D305	7A	R208	5C	C113	2B
D306	5C	R209	6B	C150	2B
VR301-1	5B	R212	5B	C201	6C
VR301-2	5B	R215	6C	C202	6C
VR302-1	5B	R216	2B	C203	6C
VR302-2	5B	R217	3C	C204	5C
L301	5B	R219	7A	C205	5C
S301	6A	R220	3C	C206	6C
S302-1	6C	R240	2B	C208	6B
S302-2	6C	R250	2B	C209	3B
S302-3	6C	R251	2B	C210	3B
S302-4	6C	R301	4B	C212	1B
S302-5	6C	R302	4B	C213	3B
S302-6	6C	R303	4B	C250	2B
S303	2B	R304	6A	C301	4B
CP301	4C	R305	5C	C302	4B
CP302	7C	R306	5C	C303	4B
CP303	7C	R307	5B	C304	6C
CP304	3C	R308	5B	C305	5C
JK301	4A	R309	5C	C306	5C
JK303	2B	R311	7B	C307	5B
R101	6C	R314	4C	C308	5C
R102	7B	R315	4C	C310	6C
R103	7B	R317	5C	C315	4C
R105	6C	R318	6C	C316	4C
R106	6C	R319	5C	C317	3C
R107	6C	R320	5C	C318	5B
R108	5C	R350	3C	C320	3B
R109	5B	R351	4B	C322	4C
R112	5B	R353	4C	C323	4C
R115	7C	R356	3B	C351	3C
R116	2B	R380	4C	C352	3B
R117	2B	R382	4C	C380	4C
D BATTERY TERMINAL P.C.B.					
FP901	2F	W902	1F		

Cabinet Parts Location



Replacement Parts List (Cabinet)

Note:

- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
  Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part name & Description	Pcs.	Remarks
1	RAS10P23-H	SPEAKERS	2	
2	RBD569ZA-0	FUNCTION KNOB	2	
3	RBT330ZB-0	FINE TUNING KNOB	1	
4	RDG0183-L	DAMPER GEAR	1	
5	RDG0253	VC GEAR	1	
6	REX0575	TAPE HEAD WIRE	1	
7	RFKGXFS50GCK	FRONT CAB ASS'Y	1	(GC)
7	RFKGXFS50GUK	FRONT CAB ASS'Y	1	(GU)
7-1	RKWX0122A-Q	DIAL PANEL	1	(GC)
7-1	RKWX0122-Q	DIAL PANEL	1	(GU)
8	RFKHXFS50GCK	BACK CAB ASS'Y	1	(GC)
8	RFKHXFS50GUK	BACK CAB ASS'Y	1	(GU)
8-1	RJC91006	BATTERY TERMINAL	1	
8-2	RJRX0005	ANTENNA WIRE	1	
9	RFKLXFS50GCK	CASS LID ASS'Y	1	
9-1	RKWX0121-Q	CASS PANEL	1	

Ref. No.	Part No.	Part name & Description	Pcs.	Remarks
10	REXX0179	SPEAKER TO MAIN WIRE	1	
11	RFXX0181	MOTOR LEAF SW. WIRE	1	
12	RGJX0018-W	POINTER	1	
13	RGV0127-K	4 BAND KNOB	1	
14	RGWX0040-K	VOLUME KNOB	1	
15	RGWX0041-K	TONE KNOB	1	
16	RGX0016-K	TUNING KNOB	1	
17	RGZX0031-S	MECHA BUTTON	1	
18	RHS002SZB	MIC CUSHION	1	
19	RKHX0009-K	HANDLE BAR	1	
20	RKK318ZC-0	BATTERY COVER	1	
21	RKXX0008-S	HANDLE ARM	2	
22	RMB0347	CASS OPEN SPRING	1	
23	RMCX0012	REC SPRING	1	
24	RMKX0026-K	DIAL CHASSIS	1	
25	RMN0230	LED HOLDER	1	

Ref. No.	Part No.	Part name & Description	Pcs.	Remarks
26	RMVX0039-K	CHASSIS COVER	1	
27	RMX0045	MECHA SPACER	1	
29	XEARR210CA-Y	ROD ANTENNA	1	
30	XTC3+10CFN	SCREW	2	
31	XTN2+3F	SCREW	1	
32	XTV3+12G	SCREW	18	
33	XTV3+20JFZ	REAR CAB SCREW	7	
34	XTV3+8G	SCREW	8	
35	XTW3+10F	HEATSINK SCREW	2	
36	XYN26+C6	VARICON SCREW	1	
37	XYN3+F12FY	R. ANT SCREW	1	
38	EFBS10D40A2	TWEETER	2	
39	RWJ0206090RR	FLAT CABLE	1	
40	REXX0180	POWER TO MAIN WIRE(6P)	1	

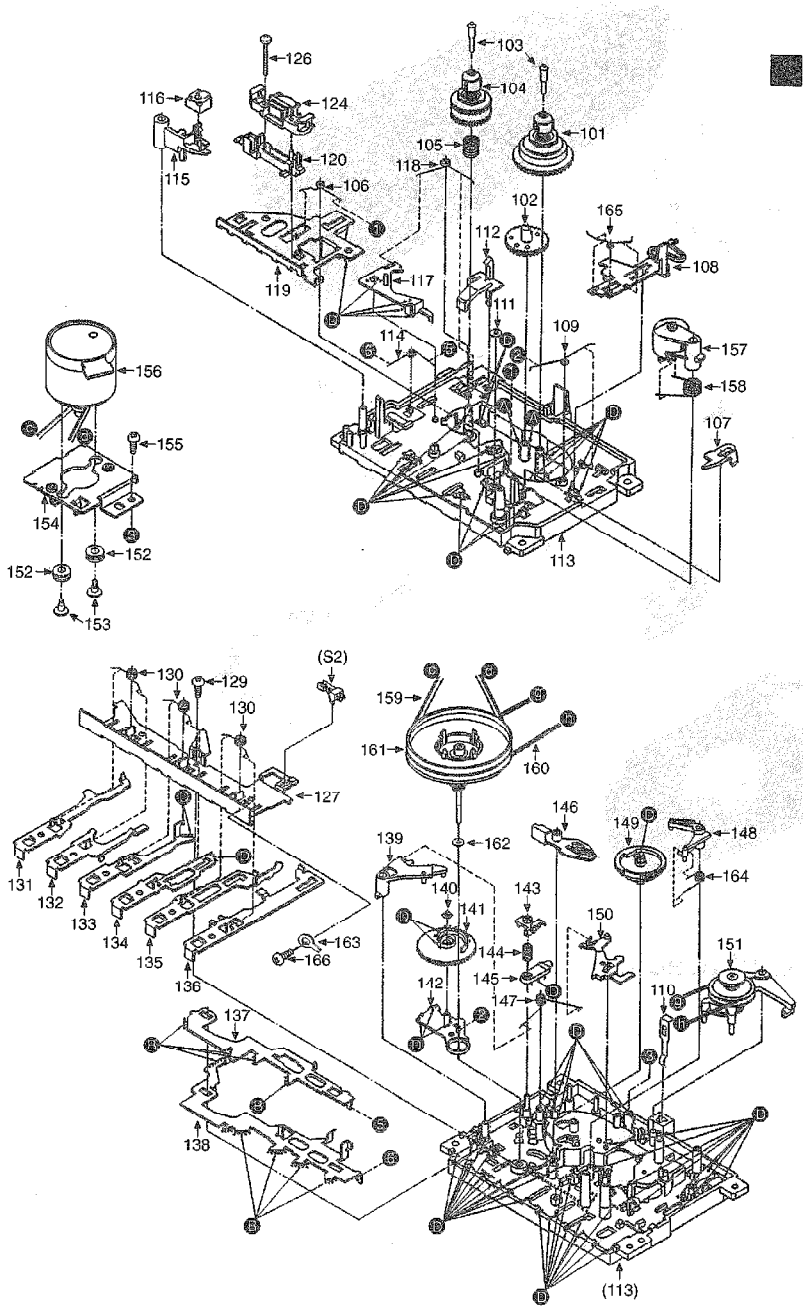
Mechanism Parts Location

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the diagram.

Ref. No.	Part No.
Ⓐ	SZZ0L25
Ⓑ	RZZ0L06
Ⓓ	SZZ0L30

● Specifications

Playback torque	20 ~ 550 g.cm
Fast Forward torque	60 ~ 150 g.cm
Rewind torque	60 ~ 150 g.cm
Wow & Flatter	0.25 % (WRMS)



Replacement Parts List (Mechanism)

Ref.No.	Part No.	Part name & Description	Pcs.	Remarks
101	RXR0004	TAKE UP REEL ASS'Y	1	
102	RDG0059	FF RELAY GEAR	1	
103	RMS0055-1	REEL SHAFT	2	
104	RXR0005	SUPPLY REEL ASS'Y	1	
105	RMB0125	SPRING	1	
106	RMB0047	SPRING	1	
107	RML0076	EJECT SELECTION LVR	1	
108	RMM0029	EJECT SLIDE LEVER	1	
109	RMB0048	SPRING	1	
110	RMC0061	SPRING	1	
111	RHW16009	CAPSTAN WASHER	1	
112	RML0081-2	RECORD SAFETY LEVER	1	
113	RFU189ZA	MECHANISM BASE ASS'Y	1	
114	RMB0046-1	SPRING	1	
115	RML0080	ERASE HEAD ARM	1	
116	RBR2CY009	ERASE HEAD	1	
117	RML0116	BRAKE ARM	1	
118	RMB0109-1	SPRING	1	
119	RMA0696	HEAD PANEL	1	
120	RMQ0384	HEAD BASE	1	
124	RBR4CY016-M	R/P HEAD	1	
126	XTN2+14F	SCREW	1	
127	RMA0109	BACK PLATE	1	
129	XTN2+6J	SCREW	1	
130	RMB0043-1	SPRING	3	
131	RMM0027	PAUSE ROD	1	
132	RMM0026	STOP ROD	1	
133	RMM0025	FF ROD	1	
134	RMM0024	REW ROD	1	
135	RMM0023	PLAY ROD	1	
136	RMM0028	REC ROD	1	
137	RML0078	FUNCTION PLATE	1	
138	RML0077	LOCK PLATE	1	
139	RML0072-1	AS RELEASE LEVER	1	
140	RMR0227	IDLER GEAR BUSH	1	
141	RDG0057-1	IDLER GEAR	1	
142	RML0074	IDLER LEVER	1	
143	RMR0211	PAUSE BUSH	1	
144	RMB0053	SPRING	1	
145	RML0082	PAUSE LEVER	1	
146	RML0071	SWAY LEVER	1	
147	RMB0045	AS SPRING	1	
148	RXL0042	TRIGGER LEVER ASS'Y	1	
149	RDK0005	CAM GEAR	1	
150	RML0073-1	AS PROTECT LEVER	1	
151	RXP0014	RF CLUTCH ASS'Y	1	
152	RMG0102	MOTOR RUBBER CUSHION	2	
153	RHD26002	SCREW	2	
154	RMA0106	MOTOR BRACKET	1	
155	XTN26+8J	SCREW	1	
156	RFM187ZA	MOTOR ASS'Y	1	
157	RXP0015	PINCH ROLLER ASS'Y	1	
158	RMB0049	SPRING	1	
159	RDV0021	BELT, MAIN	1	
160	RDV0006-1	RF BELT	1	
161	RXF0012	FLYWHEEL ASS'Y	1	
162	RHW21008	FLYWHEEL WASHER	1	
163	RJR0033	EARTH LUG	1	
164	RMB0044	TRIGGER SPRING	1	
165	RME0098-2	EJECT SLIDE LEVER SP	1	
166	XTN2+4F	EARTH LUG SCREW	1	

Replacement Parts List (Electrical)

Notes:

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
  When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
  Parts without these indications can be used for all areas.
- Remote Control Ass'y: Supply period for three years from termination of production.

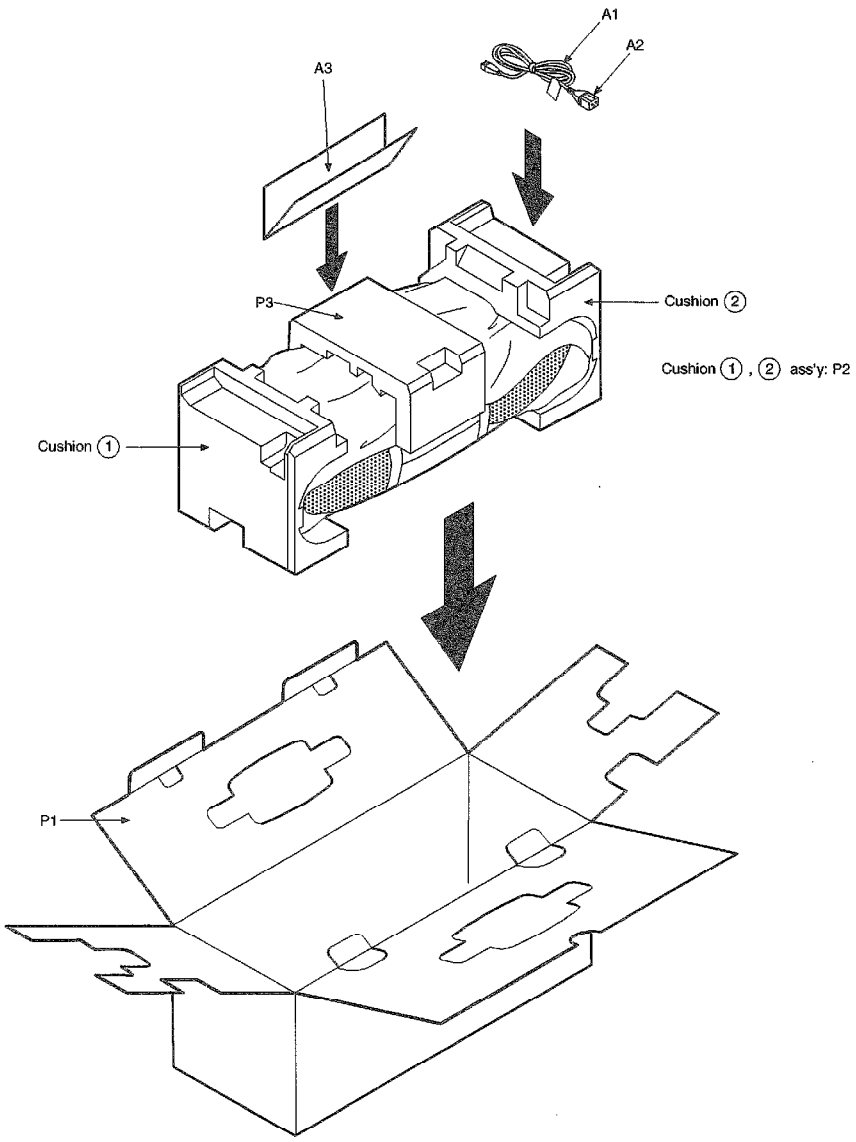
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1	ECBT1H150JC5	50V 15P	1	
C3	ECBT1H180JC5	50V 18P	1	
C5, C6	ECBT1H102KB5	50V 1000P	2	
C7	ECEA1HKA4R7B	50V 4.7	1	
C8	ECBT1H470J5	50V 47P	1	
C10	ECBT1C103MS5	16V 0.01	1	
C11	ECEA1HKAR22B	50V 0.22	1	
C12	ECEA1HKS3R3	50V 3.3	1	
C13	ECBT1H104ZF5	50V 0.1	1	
C14	ECEA1CKS220	16V 22	1	
C15, 16	ECEA1CKS100	16V 10	2	
C17	ECEA1AKS101	10V 100	1	
C18	ECBT1C103MS5	16V 0.01	1	
C20	ECBT1H102KB5	50V 1000P	1	
C21	ECBT1H220JC5	50V 22P	1	
C22	ECBT1H1R5MC5	50V 1.5P	1	
C23	ECBT1H104ZF5	50V 0.1	1	
C24	ECBT1H3R3KC5	50V 3.3P	1	
C25, 26	ECFR1C153MR	16V 0.015	2	
C28	ECBT1C103MS5	16V 0.01	1	
C30	ECBT1H8R2KC5	50V 8.2P	1	
C31	ECBT1H3R3KC5	50V 3.3P	1	
C33	ECFR1C223MR	16V 0.022	1	
C34	ECBT1H8R2KC5	50V 8.2P	1	
C36	ECQP2A361JZT	100V 360P	1	
C37	ECQP2A152JZT	100V 1500P	1	
C38	ECQP2A472JZT	100V 4700P	1	
C41	ECBT1H330J5	50V 33P	1	
C42	ECBT1H200JC5	50V 20P	1	
C43	ECBT1H8R2KC5	50V 8.2P	1	
C60	ECBT1H3R3KC5	50V 3.3P	1	
C99	ECBT1H470J5	50V 47P	1	
C101	ECBT1C152KR5	16V 1500P	1	
C102	ECBT1H331KB5	50V 330P	1	
C103	ECEA1AKS470	10V 47	1	
C104	ECEA1HKS010	50V 1	1	
C105	ECFR1C183KR	16V 0.018	1	
C106	ECBT1C332MR5	16V 3300P	1	
C108	ECFR1C473MR	16V 0.047	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C109	ECBT1H102KB5	50V 1000P	1	
C110	ECEA1HKS0R1	50V 0.1	1	
C112	ECEA1CKS100	16V 10	1	
C113	ECQV1H104JZ	50V 0.1	1	
C150	ECQV1H104JZ	50V 0.1	1	
C201	ECBT1C152KR5	16V 1500P	1	
C202	ECBT1H331KB5	50V 330P	1	
C203	ECEA1AKS470	10V 47	1	
C204	ECEA1HKS010	50V 1	1	
C205	ECFR1C183KR	16V 0.018	1	
C206	ECBT1C332MR5	16V 3300P	1	
C208	ECFR1C473MR	16V 0.047	1	
C209	ECBT1H102KB6	50V 1000P	1	
C210	ECEA1HKS0R1	50V 0.1	1	
C212	ECEA1CKS100	16V 10	1	
C213	ECQV1H104JZ	50V 0.1	1	
C250	ECQV1H104JZ	50V 0.1	1	
C301	ECEA1CKS100	16V 10	1	
C302	ECEA1HKS0R1	50V 0.1	1	
C303	ECFR1C223MR	16V 0.022	1	
C304	ECEA1CKS100	16V 10	1	
C305	ECEA1AM471B	10V 470	1	
C306	ECA1CM330	10V 33	1	
C307	ECFR1C223MR	16V 0.022	1	
C308	ECEA1AKS221	6.3V 220	1	
C310	ECQP2A332JZ	100V 3300P	1	
C315	ECFR1C103MR	16V 0.01	1	
C316	ECA1CM470	16V 47	1	
⚠ C317	ECA1CM222	16V 2200	1	
C318	ECBT1C103MS5	16V 0.01	1	
C320	ECFR1C103MR	16V 0.01	1	
C322	ECEA1CKS101	16V 100	1	
C323	ECFR1E104MR	25V 0.1	1	
C351	ECEA1CKS220	16V 22	1	
C352	ECEA1CKA470B	16V 47	1	
C380	ECA0JM331	6.3V 330	1	
C901-04	ECKR1H103ZF5	50V 0.01	4	
CF1	RVF107WDZT	CERAMIC FILTER	1	
CF2	RVFSFZ455JL	CERAMIC FILTER	1	
CN1	RMRO315	WIRE HOLDER(6P)	1	
CN901	RJS1A5506	WIRE HOLDER(6P)	1	
CP301, 02	RJP4G18ZA	CONNECTOR(4P)	2	
CP303	RJS1A5206	CONNECTOR(6P)	1	
CP304	RJP6G4YA	CONNECTOR(6P)	1	
CP902	RJP4G9YA	CONNECTOR(4P)	1	
CT5-T7	ECRLAD10A53R	TRIMMER	3	
CT8	RCVMFTPC17	FINE TUNING TRIMMER	1	
⚠ D301	MTZJ6R8BTA	DIODE	1	
D302-04	RVD1SS133TA	DIODE	3	
D305	SLR342VC	LED	1	
D306	RVD1SS133TA	DIODE	1	
⚠ D901-04	RL154M11	DIODE	4	
⚠ F1	XBA2C20TB0	FUSE, T2A	1	
FC1, C2	EYF52BC	FUSE HOLDER	2	
⚠ FP901	RSFMB40KT-L	FUSE PROTECTOR	1	
IC1	LA1828	IC	1	
IC301	LA4663	IC	1	
IC302	BA3313L	IC	1	
JK301	RJM164YA	JACK, BUILT-IN MIC	1	
JK303	RJJ37TK01-1C	JACK, HEADPHONES	1	
⚠ JK901	RJJ1SE01-1H	JACK, AC INLET	1	
L2	RL04P002T-E	COIL, FM OSC	1	(GC)
L2	RLD4Y53W	COIL, FM OSC	1	(GU)
L3	RLV5C009-0	COIL, FERRITE ANT	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L6	RLQY30S4W	COIL,CHOKE	1	
L7	RLA3B44-M	COIL,SW2 ANT	1	
L8	RL02B108-M	COIL,MW OSC	1	
L9	RL03B91-M	COIL,SW1 OSC	1	
L10	RL03B95-M	COIL,SW2 OSC	1	
L301	RL09B17-T	COIL,BIAS OSC	1	
Q1	2SC829D	TRANSISTOR	1	
⚠ Q301	2SC2001K	TRANSISTOR	1	
Q302	2SA1127-S	TRANSISTOR	1	
Q303	2SC1685-QNC	TRANSISTOR	1	
Q306	RVTDTC144EST	TRANSISTOR	1	
Q380	2SC2001K	TRANSISTOR	1	
R1	ERDS2FJ101	1/4W 100	1	
R2,R3	ERDS2FJ100	1/4W 10	2	
R4	ERDS2FJ470	1/4W 47	1	
R5	ERDS2FJ270	1/4W 27	1	
R6,R7	ERDS2FJ101	1/4W 100	2	
R8	ERDS2FJ104	1/4W 100K	1	
R10	ERDS2FJ272	1/4W 2.7K	1	
R11	ERDS2FJ270	1/4W 27	1	
R13	ERDS2FJ103	1/4W 10K	1	
R14	ERDS2FJ181	1/4W 180	1	
R16	ERDS2FJ181	1/4W 180	1	
R17	ERDS2FJ334	1/4W 330K	1	
R18	ERDS2FJ471	1/4W 470	1	
R19	ERDS2FJ680	1/4W 68	1	
R21,22	ERDS2FJ102	1/4W 1K	2	
R101	ERDS2FJ152	1/4W 1.5K	1	
R102	ERDS2FJ103	1/4W 10K	1	
R103	ERDS2FJ564	1/4W 560K	1	
R105	ERDS2FJ682	1/4W 6.8K	1	
R106	ERDS2FJ560	1/4W 56	1	
R107	ERDS2FJ222	1/4W 2.2K	1	
R108	ERDS2FJ103	1/4W 10K	1	
R109	ERDS2FJ562	1/4W 5.6K	1	
R112	ERDS2FJ333	1/4W 33K	1	
R115	ERDS2FJ103	1/4W 10K	1	
R116	ERDS2FJ101	1/4W 100	1	
R117	ERDS2FJ1R0	1/4W 1	1	
R119	ERDS2FJ564	1/4W 560K	1	
R120	ERDS2FJ1R2	1/4W 1.2	1	
R140	ERDS2FJ1R2	1/4W 1.2	1	
R150	ERDS2FJ1R0	1/4W 1	1	
R151	ERDS2FJ103	1/4W 10K	1	
R201	ERDS2FJ152	1/4W 1.5K	1	
R202	ERDS2FJ103	1/4W 10K	1	
R203	ERDS2FJ564	1/4W 560K	1	
R205	ERDS2FJ682	1/4W 6.8K	1	
R206	ERDS2FJ560	1/4W 56	1	
R207	ERDS2FJ222	1/4W 2.2K	1	
R208	ERDS2FJ103	1/4W 10K	1	
R209	ERDS2FJ562	1/4W 5.6K	1	
R212	ERDS2FJ333	1/4W 33K	1	
R215	ERDS2FJ103	1/4W 10K	1	
R216	ERDS2FJ101	1/4W 100	1	
R217	ERDS2FJ1R0	1/4W 1	1	
R219	ERDS2FJ564	1/4W 560K	1	
R220	ERDS2FJ1R2	1/4W 1.2	1	
R240	ERDS2FJ1R2	1/4W 1.2	1	
R250	ERDS2FJ1R0	1/4W 1	1	
R251	ERDS2FJ103	1/4W 10K	1	
R301,02	ERDS2FJ102	1/4W 1K	2	
R303	ERDS2FJ472	1/4W 4.7K	1	
R304	ERDS2FJ222	1/4W 2.2K	1	
R305	ERDS2FJ105	1/4W 1M	1	
R306	ERDS2FJ561	1/4W 560	1	
R307	ERDS2FJ333	1/4W 33K	1	
R308	ERDS2FJ221	1/4W 220	1	
R309	ERDS2FJ6R8	1/4W 6.8	1	
R311	ERDS2FJ102	1/4W 1K	1	
R314	ERDS2FJ560	1/4W 56	1	
R315	ERDS2FJ681	1/4W 680	1	
R317	ERDS2FJ104	1/4W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R318	ERDS2FJ101	1/4W 100	1	
R319,20	ERDS2FJ102	1/4W 1K	2	
R350	ERDS2FJ152	1/4W 1.5K	1	
R351	ERDS2FJ103	1/4W 10K	1	
R353	ERDS2FJ473	1/4W 47K	1	
R356	ERDS2FJ563	1/4W 56K	1	
R380	ERDS2FJ222	1/4W 2.2K	1	
R382	ERDS2FJ473	1/4W 47K	1	
R383	ERDS2FJ102	1/4W 1K	1	
R901	ERDS2FJ222	1/4W 2.2K	1	
S1	RSS4H04XA-H	SW, BAND	1	
S2	RSH1A003-U	SW,MOTOR	1	
S301	RSS2D32ZA-H	SW,SELECTOR	1	
S302	RSP2F001-A	SW,R/P SELECTOR	1	
S303	RSS2A66ZA-H	SW,FM MODE/BP	1	
⚠ S901	RSR2A005S-H	SW, VOLTAGE SELECTOR	1	
S901A	RJJ1SE01-1H	SW,AC/DC SELECTOR(JK901)	1	
T1	RL14B153-M	FM IFT	1	
T2	RL12B153-M	AM IFT	1	
T3	RL14B153-M	FM IFT	1	
⚠ T901	RTP1U1E008-X	POWER TRANSFORMER	1	
VC1	RCV4RC2V2K-M	VARIABLE CAPACITOR	1	
VR301	EWCVVAF15D54	VR,TONE	1	
VR302	EWCUVAF15A54	VOL,VOLUME	1	
Z1	RCRBMT003-H	BAND PASS FILTER	1	

Packaging



Replacement Parts List (Accessories & Packing)

Note:

- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
  Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
A1	RJA0004	AC CORD	1	(GU)
A1	RJA0019-2K	AC CORD	1	(GC)
A2	RJP1SG02-H	AC PLUG ADAPTOR	1	(GU)
A2	RJP1SG04-H	AC CORD ADAPTOR	1	(GC)
A3	RQT4243-M	O/I BOOK	1	(GC)
A3	RQT4404-G	O/I BOOK	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
P1	RPGX0467	GIFT BOX	1	(GU)
P1	RPGX0480	GIFT BOX	1	(GC)
P2	RPNX0077	CUSHION	1	
P3	RPNX0081	CENTER CUSHION	1	

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ORDER NO. MD9810143S8

Service Manual

Supplement

Stereo Radio Cassette Recorder

Radio Cassette

RX-FS50

Colour

(K) ... Black Type
(R) ... Red Type

Area

Suffix for Model No.	Area	Colour
(GC)	Saudi Arabia, Kuwait, Singapore, Malaysia.	(K) (R)
(GU)	Asia, Latin America, Middle East and Africa.	
(EE)	C.I.S	(K)

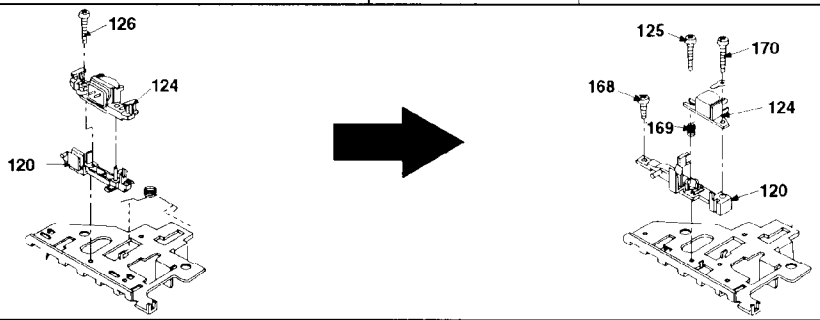
Please file and use this Service Manual together with the Service Manual for Model No.RX-FS50 Order No.
MD98060116S3 (GC,GU)
MD9804079C3 (GC,GU)
MD9806117A2 (EE)

TAPE SECTION : SG20 MECHANISM SERIES

* MASH is a trademark of NTT.

Note : This Supplement Service Manual is intended to provide additional information or correction to the existing service manual for model No. RX-FS50. Be sure to update your Service Manual for future reference.

Ref. No.	Description	Change of Parts Number		Remarks
		RAA0903-N	➡ **RAA0941-N**	
CASSETTE DECK				
120	HEAD BASE	RMQ0384	**RMR0149**	Changed
124	R/P HEAD	RBR4CY016-M	**RBR4CM004-M**	Changed
125	AZIMUTH SCREW	--	**RHD20049**	Added
126	HEAD SCREW	XTN2+14F	--	Deleted
168	HEAD BASE SCREW	--	**XTN2+4F**	Added
169	AZIMUTH SPRING	--	**RMB0059**	Added
170	HEAD SCREW	--	**XTN2+8F**	Added



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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